HITACHI SERVICE MANUAL

PA | No. 0007

46UX10BA/11KA

NTSC | AP13 Chassis

R/C:CLU-950GR

CONTENTS

This service manual gives differences between the 46UX10BA/11KA and 50UX7B/K/W. For any other information, see the 50UX7B/K/W Service Manual YK No. 0403E issued in May, 1991.

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CAUTION: Before servicing this chassis, it is important that the service technician read the "Safety Precaution" and "Product Safety Notices" in this Service Manual.

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

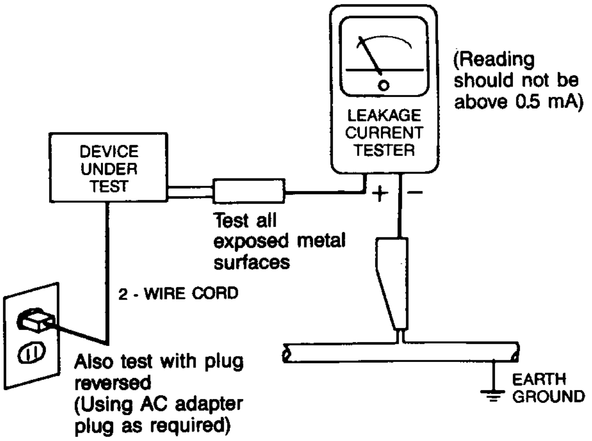
SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PROJECTION COLOR TELEVISION

February 1992 HHEA - MANUFACTURING DIVISION

SAFETY PRECAUTIONS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to the following items:
   a. Be sure that no built-in protective devices are defective and/or have been deleted during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
   b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
   c. **Antenna Cold Check** — With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ommeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohms or greater than 5.2 megohms, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.
   d. **Leakage Current Hot Check** — With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamps. Reverse the instrument power cord plug in the outlet and repeat test.

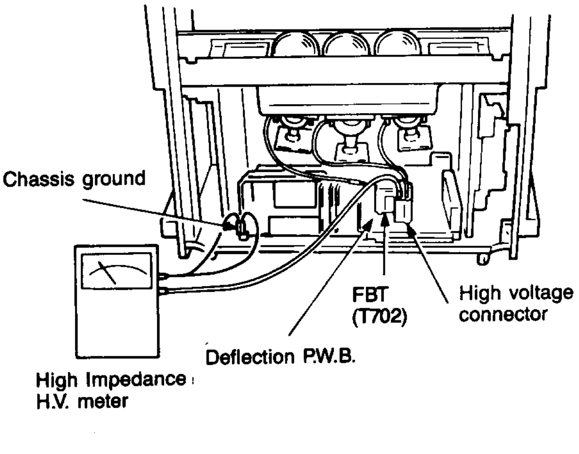

(Reading should not be above 0.5 mA)
LEAKAGE CURRENT TESTER
DEVICE UNDER TEST
+
−
Test all exposed metal surfaces
2 - WIRE CORD
Also test with plug reversed (Using AC adapter plug as required)
EARTH GROUND

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

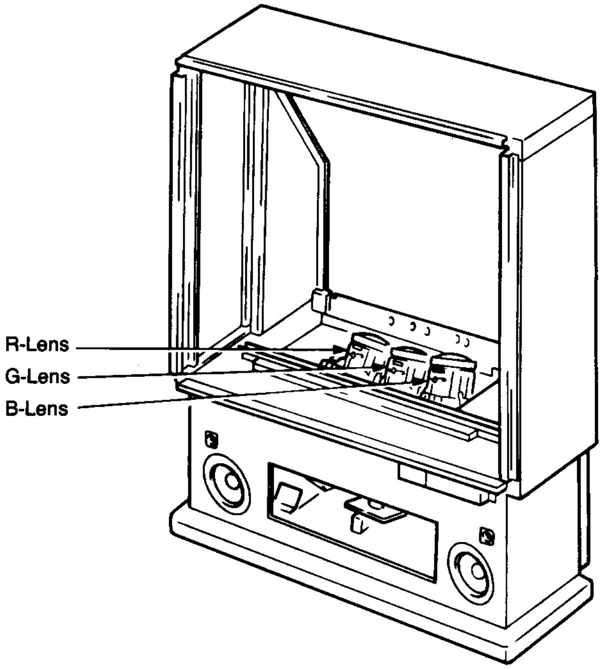
   e. **High Voltage** — This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may correctly be operated.
   f. **Serviceman Warning** — With minimum contrast and brightness, operating high voltage in this receiver is lower than **31.6kV**. In case any component having influenced on high voltage is replaced, confirm that high voltage with minimum contrast and brightness is lower than **31.6kV**.
   To measure H.V. use a high impedance H.V. meter. Connect (−) to chassis earth and (+) to the CRT anode button. (See the following connection diagram.)

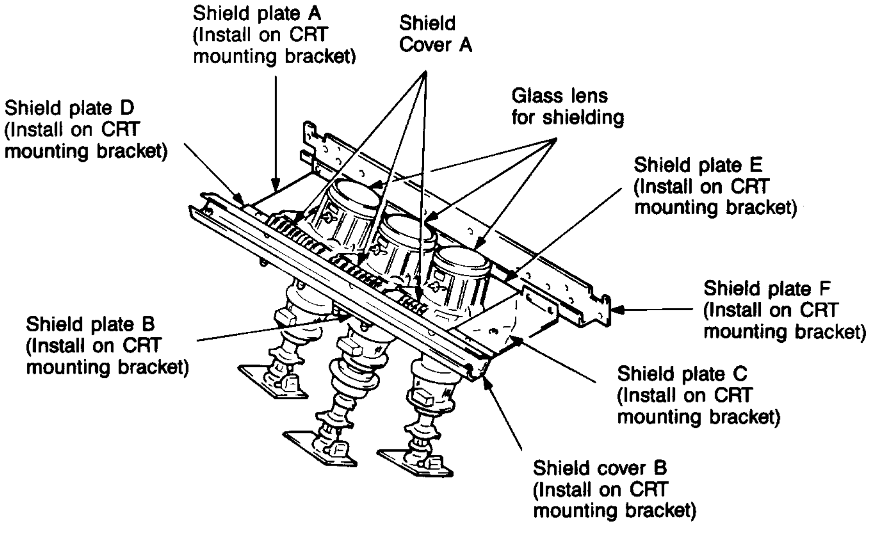
Note: Turn power switch off without fail before the connection to the anode button is made.



g. **X-radiation — TUBE:** The primary source of X-radiation in this receiver is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X-radiation emissions.
For continued X-radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.
When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage component.
Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

h. **X-radiation Shield —**
   1) This receiver is provided X-ray shield plates for the protection of X-radiation. Do not remove X-ray shield plates A, B, C, D, E, F and shield covers A, B shown in Fig. 1 unnecessarily when trouble-shooting and/or making test measurements.
   2) To prevent X-radiation, after replacement of picture tube and lens, confirm these components to be fixed correctly to bracket and cabinet, and not to be taken off easily.


R-Lens
G-Lens
B-Lens


Shield plate A (Install on CRT mounting bracket)
Shield Cover A
Shield plate D (Install on CRT mounting bracket)
Glass lens for shielding
Shield plate E (Install on CRT mounting bracket)
Shield plate F (Install on CRT mounting bracket)
Shield plate B (Install on CRT mounting bracket)
Shield plate C (Install on CRT mounting bracket)
Shield cover B (Install on CRT mounting bracket)

Detailing X-radiation shields
Fig. 1

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. **Design Alteration Warning** — Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to, circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4. **Picture Tube Implosion Protection Warning** — The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck.

5. **Hot Chassis Warning** — **a.** Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground. **b.** Some TV receiver chassis normally have 85V AC (RMS) between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. **c.** Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a.** near sharp edges, **b.** near thermally hot parts — be sure that leads and components do not touch thermally hot parts, **c.** the AC supply, **d.** high voltage, and **e.** antenna wiring. Always inspect in all areas for pinched, out-of-plate, or frayed wiring. Do not change spacing between components, and between components and the printed circuit board. Check AC power cord for damage.

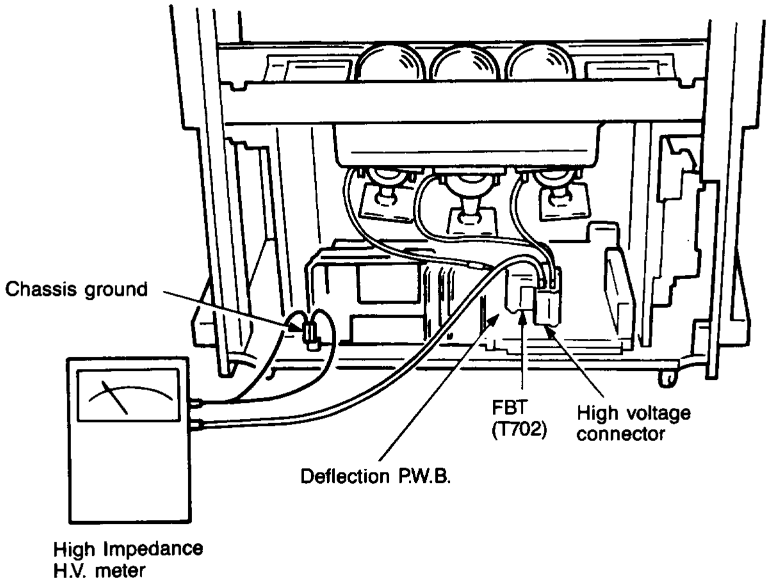
7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. **PRODUCT SAFETY NOTICE** — Many TV electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified Hitachi service data by shading on schematics and by a (⚠) in the parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in Hitachi service data parts list might create shock, fire, and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current Hitachi service literature. A subscription to, or additional copies of Service literature may be obtained at a normal charge from Hitachi.

TECHNICAL CAUTIONS

High voltage limiter circuit operation check

1. Connect the high voltage voltmeter between the high voltage connector and chassis ground as shown in Fig. 2.
2. Set the AC input voltage to 120V.
3. Set the contrast and brightness control fully to + side (max.) of the on-screen indication.
4. Connect the jig as shown in Fig. 2 to POWER SUPPLY P.W.B.
5. Turn the 20kΩ-B VR of the jig fully clockwise viewed from the knob side.
6. Turn on the set.
7. Gradually turn the 20 kΩ-B VR of the jig counterclockwise and check that the picture disappears when the high voltage is less than 38kV.
8. Turn off the set immediately after checking that the picture disappears.
9. Remove the jig and voltmeter.


Chassis ground
FBT
(T702)
High voltage
connector
Deflection P.W.B.
High Impedance
H.V. meter

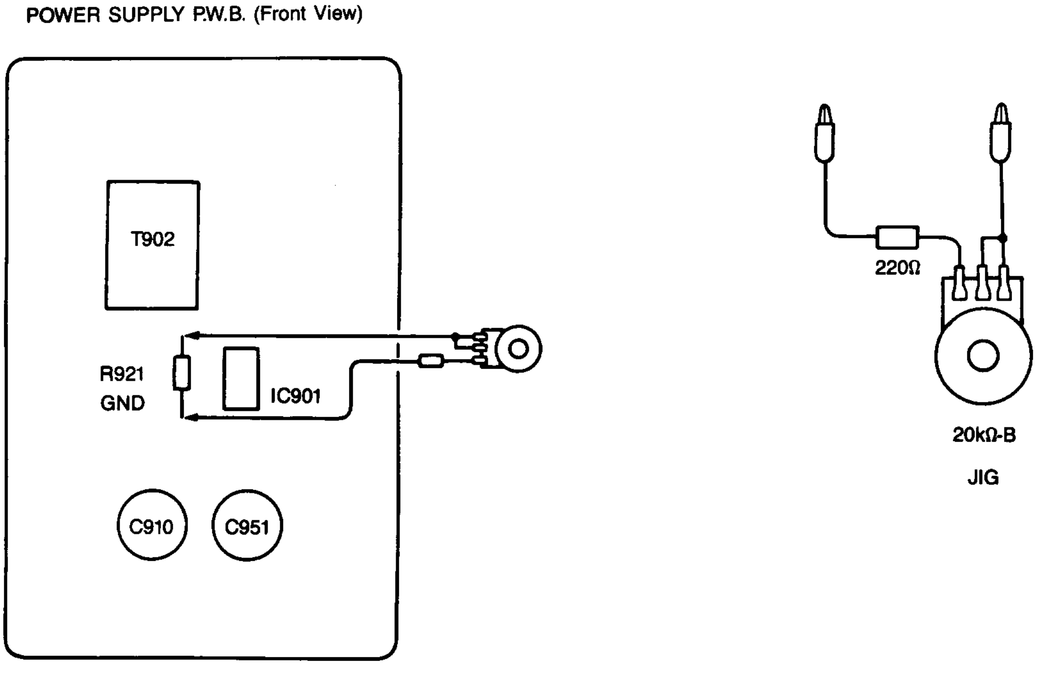

POWER SUPPLY P.W.B. (Front View)
T902
R921
GND
IC901
C910
C951
220Ω
20kΩ-B
JIG

Fig. 2

SPECIFICATIONS

Model: 46UX10BA/11KA

Cathode-Ray Tube: 80° deflection 7 inch (180CZB22R/180CGB22G/180CZB22B)

Power Input: 120 volts AC, 60Hz

Power Consumption: 310 watts - Maximum
210 watts - Operating

Antenna Impedance: 75 ohm Unbalanced
VHF/UHF/CATV

Receiving Channel:

	CH
VHF	2-13
UHF	14-69
EXT. Mid	(A-2)-(A-1), 4*
CATV Mid	A-I
CATV Super	J-W
CATV Hyper	(W+1)-(W+28)
CATV Ultra	(W+29)-(W+53)

Intermediate Frequency: Picture I-F carrier 45.75 MHz
Sound I-F Carrier 41.25 MHz
Color Sub Carrier 42.17 MHz

Video Input: 1 Voltp-p 75 ohm

Video Output: 1 Voltp-p 75 ohm

Audio Input: 0.4 volt rms, 40 k ohm

Stereo Audio Output: 0.4 volt rms, 1 k ohm

Audio Output Power: Front — 10 watts rms per channel, 8 ohm impedance.
Rear — 5 watts rms per channel, 8 ohm impedance.

Anode Voltage: 30.0 kV (Zero Beam Current)

Brightness: 570 ft-L Nominal (Peak White)

Speakers: 2 Woofers — 6 inch (16 cm) round
2 Tweeters — 2 inch (5 cm) round

Dimension:
Width . . . . 39¾″
Height . . . . 48⅜″
Depth . . . . 26⅜″
Weight . . . . 210 lbs.

Circuit Board Assemblies:
- CPT (B) P.C.B.
- CPT (G) P.C.B.
- CPT (R) P.C.B.
- Convergence Correction P.C.B.
- Signal P.C.B.
- Power Supply P.C.B.
- Deflection P.C.B.
- 3-Way P.C.B.
- Pro-Logic P.C.B.
- P in P Selector P.C.B.
- SP Terminal P.C.B.
- Control P.C.B.

CIRCUIT PROTECTION

Fuse (or Device)	Circuit Protected	Physical Location
F901 5.0A-125V (AC)	Main Fuse	Signal Circuit Board
F903 4.0A-125V (DC)	Main Fuse	Power Supply Circuit Board
F904 4.0A-125V (DC)	Audio Output Circuit	Power Supply Circuit Board
F905 1.6A-125V (DC)	Deflection Circuit	Power Supply Circuit Board

GENERAL INFORMATION

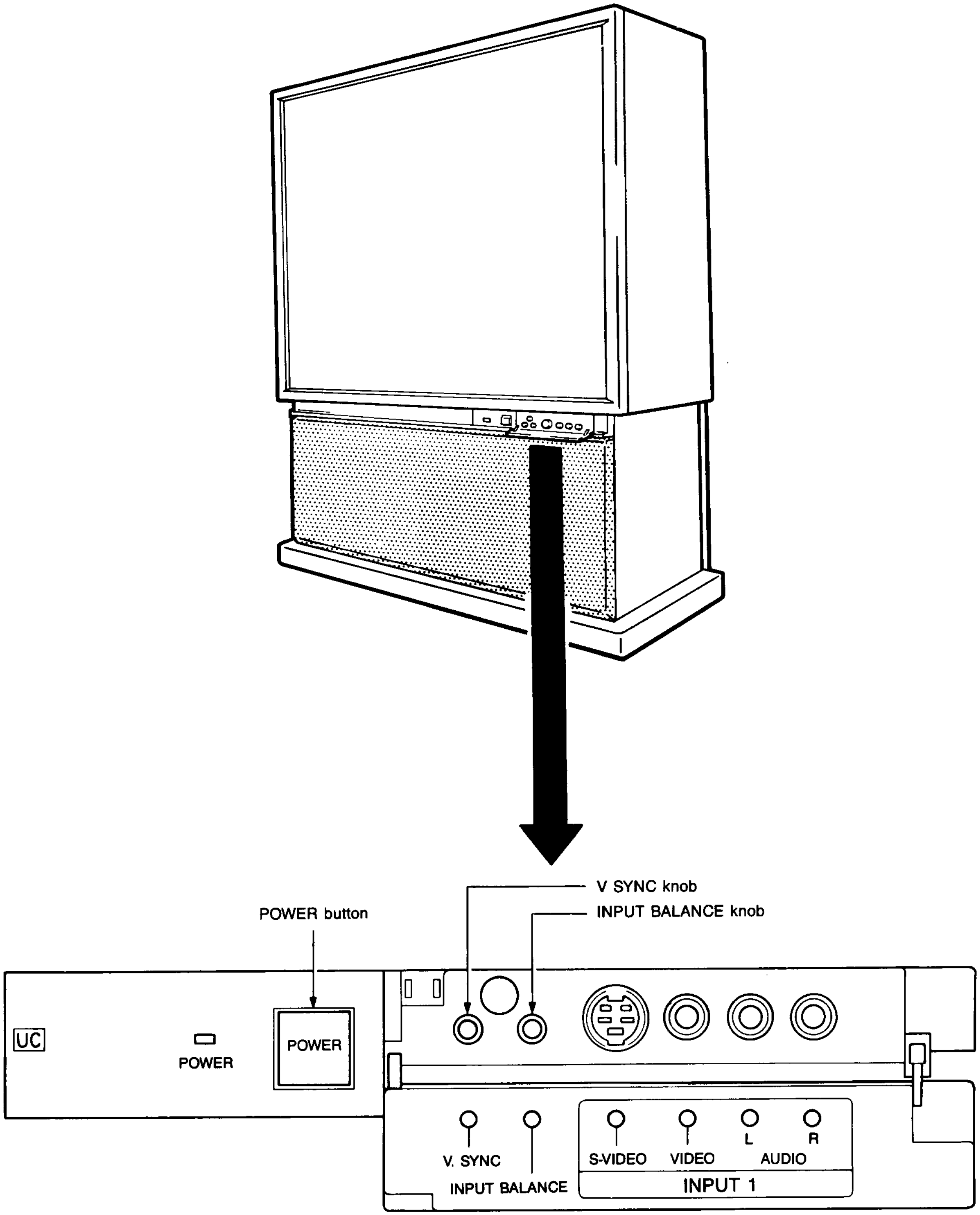

V SYNC knob
INPUT BALANCE knob
POWER button
UC
POWER
POWER
V. SYNC
INPUT BALANCE
S-VIDEO
VIDEO
L
R
AUDIO
INPUT 1

Fig. 3 Control Panel

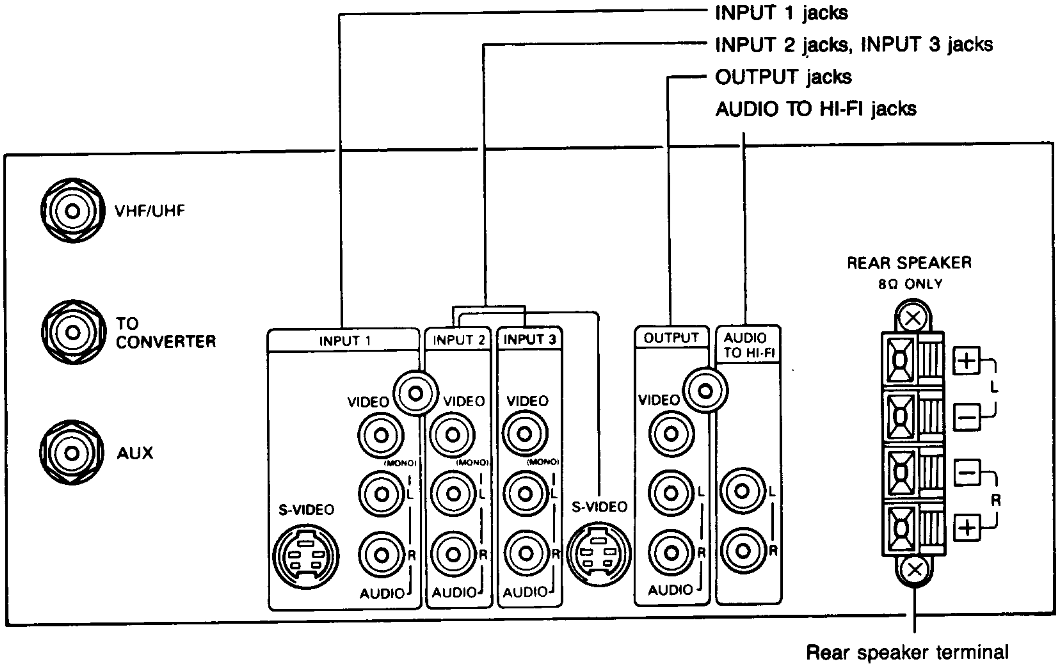
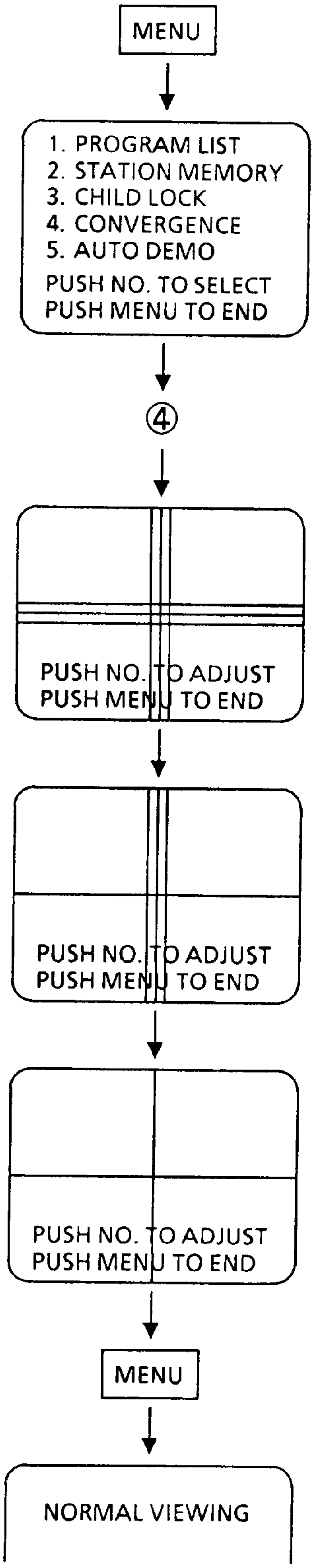

INPUT 1 jacks
INPUT 2 jacks, INPUT 3 jacks
OUTPUT jacks
AUDIO TO HI-FI jacks
VHF/UHF
TO CONVERTER
AUX
INPUT 1
INPUT 2
INPUT 3
OUTPUT
AUDIO TO HI-FI
VIDEO
(MONO)
L
R
AUDIO
S-VIDEO
REAR SPEAKER
8Ω ONLY
+
−
Rear speaker terminal

Fig. 4 Monitor Connection Panel

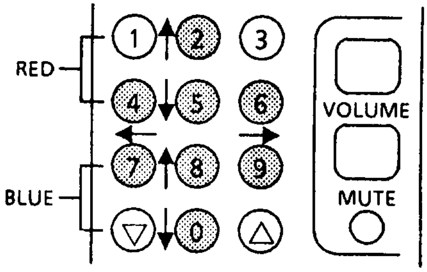
CONVERGENCE ADJUSTMENT

Static Convergence

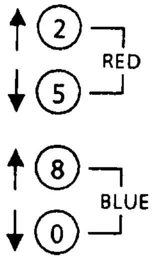

MENU
1. PROGRAM LIST
2. STATION MEMORY
3. CHILD LOCK
4. CONVERGENCE
5. AUTO DEMO
PUSH NO. TO SELECT
PUSH MENU TO END
④
PUSH NO. TO ADJUST
PUSH MENU TO END
PUSH NO. TO ADJUST
PUSH MENU TO END
PUSH NO. TO ADJUST
PUSH MENU TO END
MENU
NORMAL VIEWING

Use button on Remote to align colors to form white lines

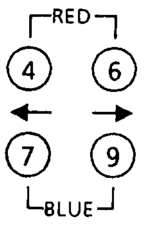
Remote Control


RED
BLUE
1
2
3
4
5
6
7
8
9
0
VOLUME
MUTE

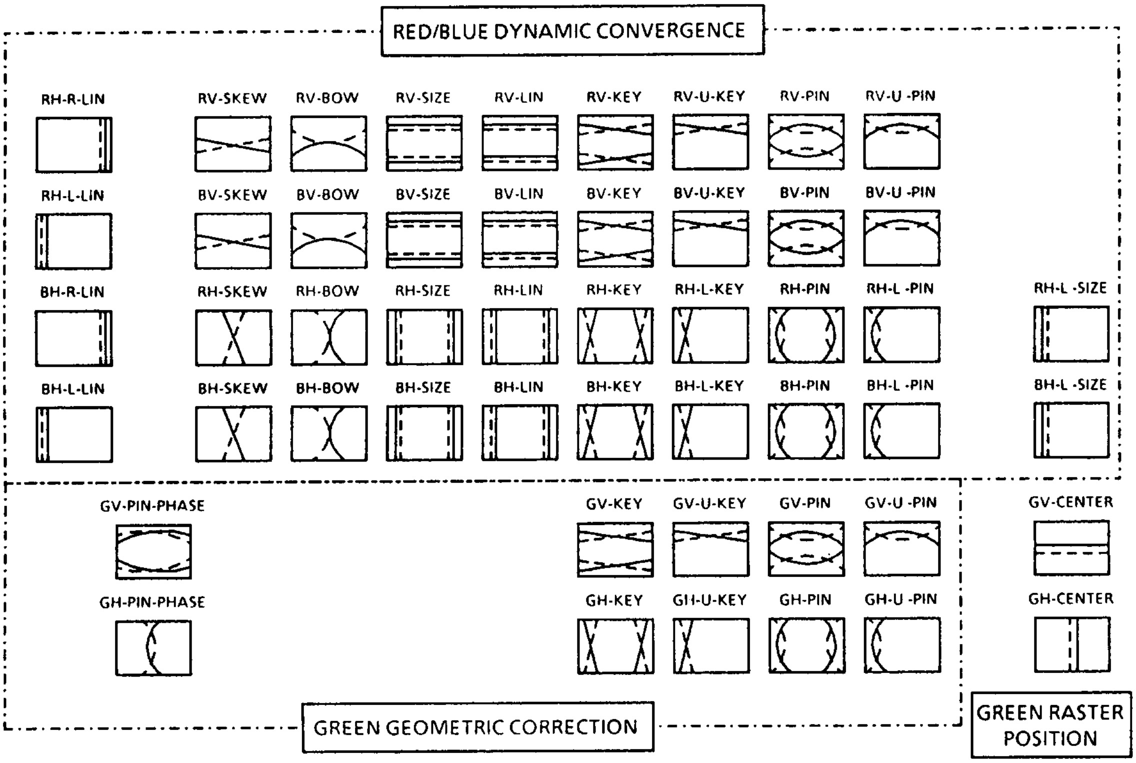
Vertical Position


2
5
RED
8
0
BLUE

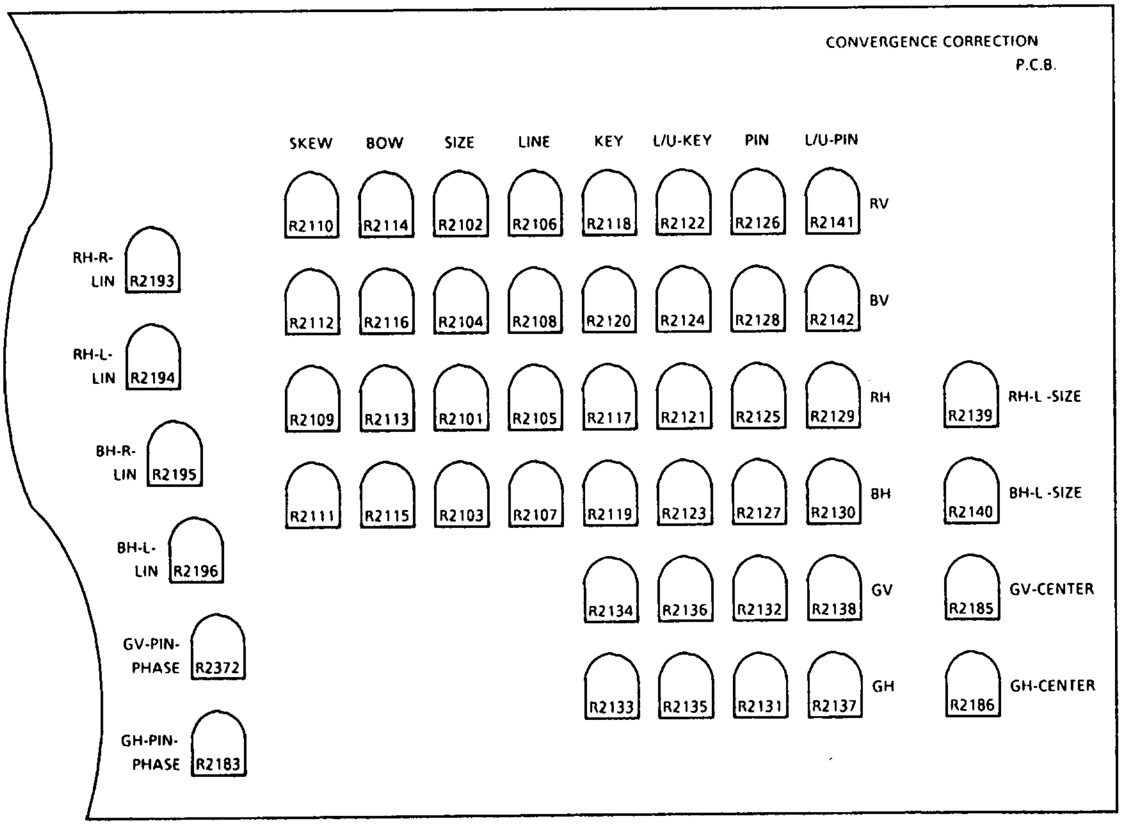
Horizontal Position


RED
4
6
7
9
BLUE

Dynamic Convergence


RED/BLUE DYNAMIC CONVERGENCE
RH-R-LIN
RV-SKEW
RV-BOW
RV-SIZE
RV-LIN
RV-KEY
RV-U-KEY
RV-PIN
RV-U -PIN
RH-L-LIN
BV-SKEW
BV-BOW
BV-SIZE
BV-LIN
BV-KEY
BV-U-KEY
BV-PIN
BV-U -PIN
BH-R-LIN
RH-SKEW
RH-BOW
RH-SIZE
RH-LIN
RH-KEY
RH-L-KEY
RH-PIN
RH-L -PIN
RH-L -SIZE
BH-L-LIN
BH-SKEW
BH-BOW
BH-SIZE
BH-LIN
BH-KEY
BH-L-KEY
BH-PIN
BH-L -PIN
BH-L -SIZE
GV-PIN-PHASE
GV-KEY
GV-U-KEY
GV-PIN
GV-U -PIN
GV-CENTER
GH-PIN-PHASE
GH-KEY
GH-U-KEY
GH-PIN
GH-U -PIN
GH-CENTER
GREEN GEOMETRIC CORRECTION
GREEN RASTER POSITION

Layout of the Adjustment VR


CONVERGENCE CORRECTION
P.C.B.
SKEW
BOW
SIZE
LINE
KEY
L/U-KEY
PIN
L/U-PIN
R2110
R2114
R2102
R2106
R2118
R2122
R2126
R2141
RV
RH-R-
LIN
R2193
R2112
R2116
R2104
R2108
R2120
R2124
R2128
R2142
BV
RH-L-
LIN
R2194
R2109
R2113
R2101
R2105
R2117
R2121
R2125
R2129
RH
R2139
RH-L -SIZE
BH-R-
LIN
R2195
R2111
R2115
R2103
R2107
R2119
R2123
R2127
R2130
BH
R2140
BH-L -SIZE
BH-L-
LIN
R2196
R2134
R2136
R2132
R2138
GV
R2185
GV-CENTER
GV-PIN-
PHASE
R2372
R2133
R2135
R2131
R2137
GH
R2186
GH-CENTER
GH-PIN-
PHASE
R2183

CAUTIONS WHEN CONNECTING/DISCONNECTING THE HV CONNECTOR

Perform the following when the HV connector (anode connector) is removed or inserted for CPT replacement, etc.

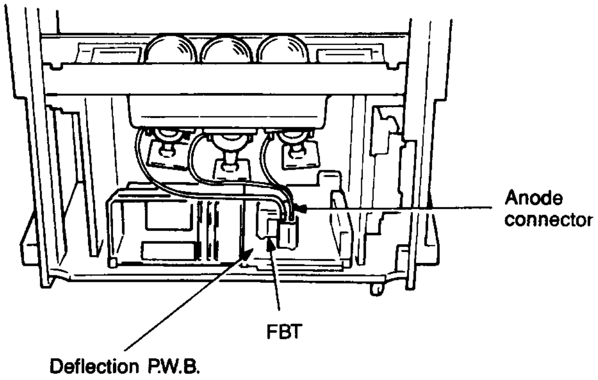

Anode connector
FBT
Deflection P.W.B.

Fig. 5

During Removal

1. Insert a small flat-bladed screwdriver (adjustment screwdriver : 5-7 mm wide and 0.2-0.3 mm thick) into section Ⓐ in Fig. 6 then push it in the direction of arrow Ⓑ . The lock will release with a click. (The state in Fig. 8-(1) will change to that in Fig. 8-(2).)

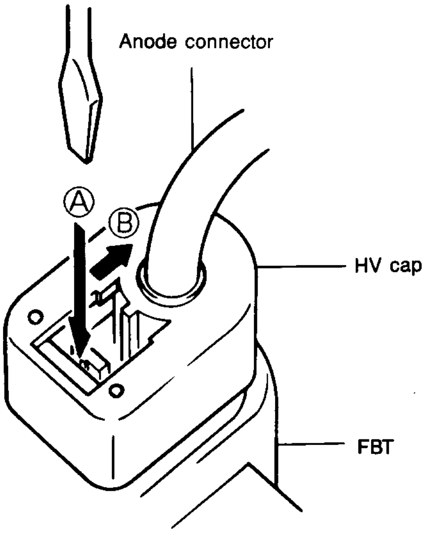

Anode connector
Ⓐ
Ⓑ
HV cap
FBT

Fig. 6

2. Remove the HV cap and remove the anode connector (Fig. 7).

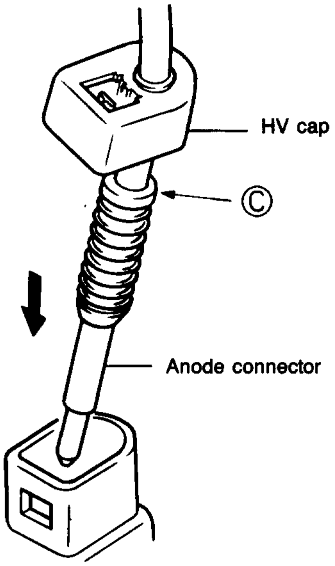
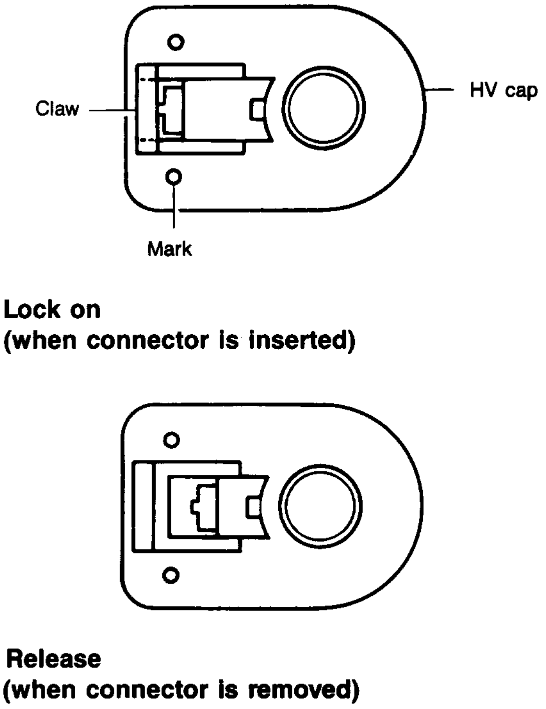

HV cap
Ⓒ
Anode connector

Fig. 7

During Insertion

1. Insert the anode connector deep into the FBT (to section Ⓒ in Fig. 7) and then push the HV cap into the FBT until it clicks.
2. Make sure the connector is securely inserted. (Check that the claw is at the mark on the HV cap shown as in Fig. 8-(1).)

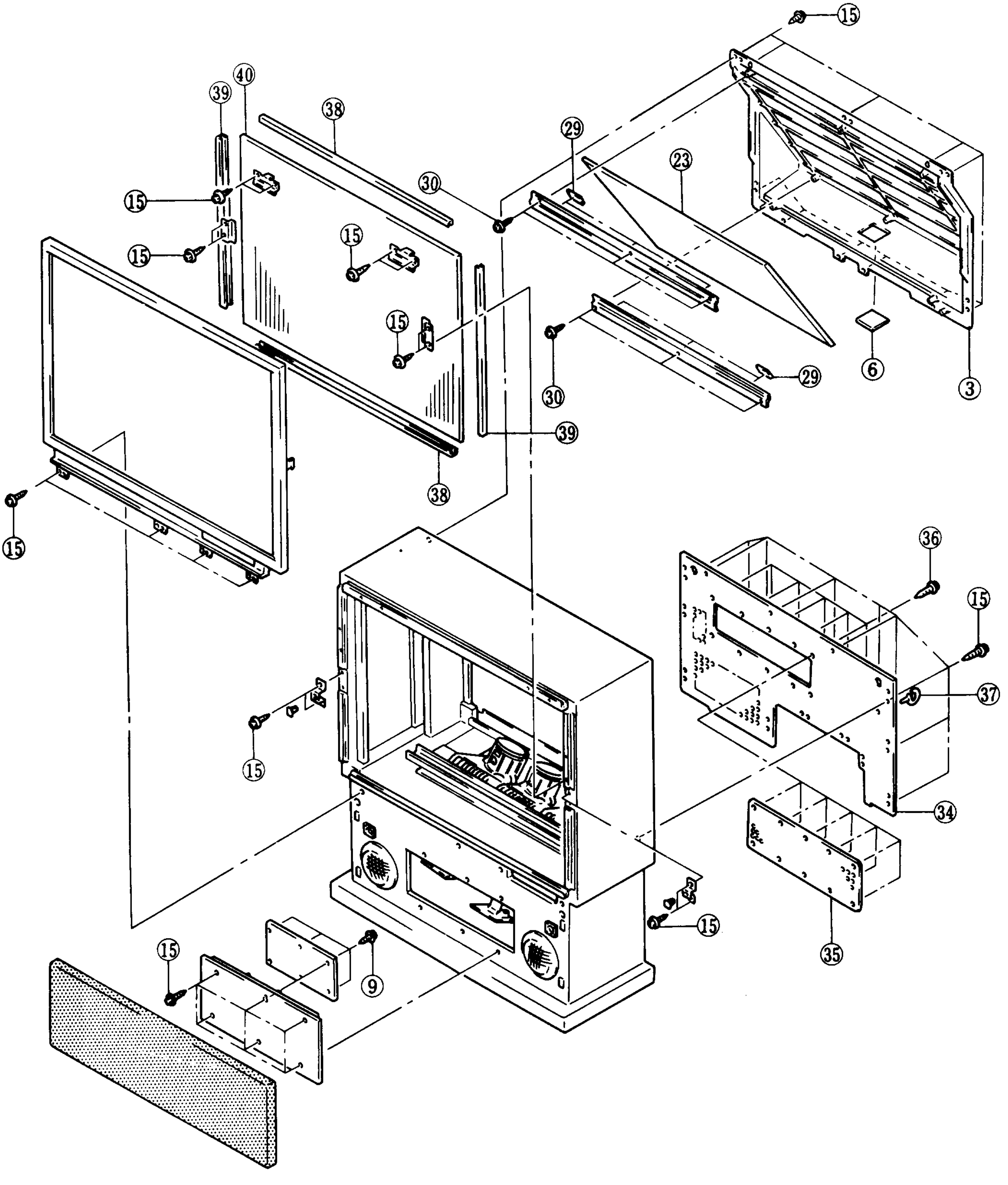

Claw
HV cap
Mark

(1) Lock on
(when connector is inserted)

(2) Release
(when connector is removed)

Fig. 8

EXPLODED VIEW (1/3)


⑮
㊵
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㊳
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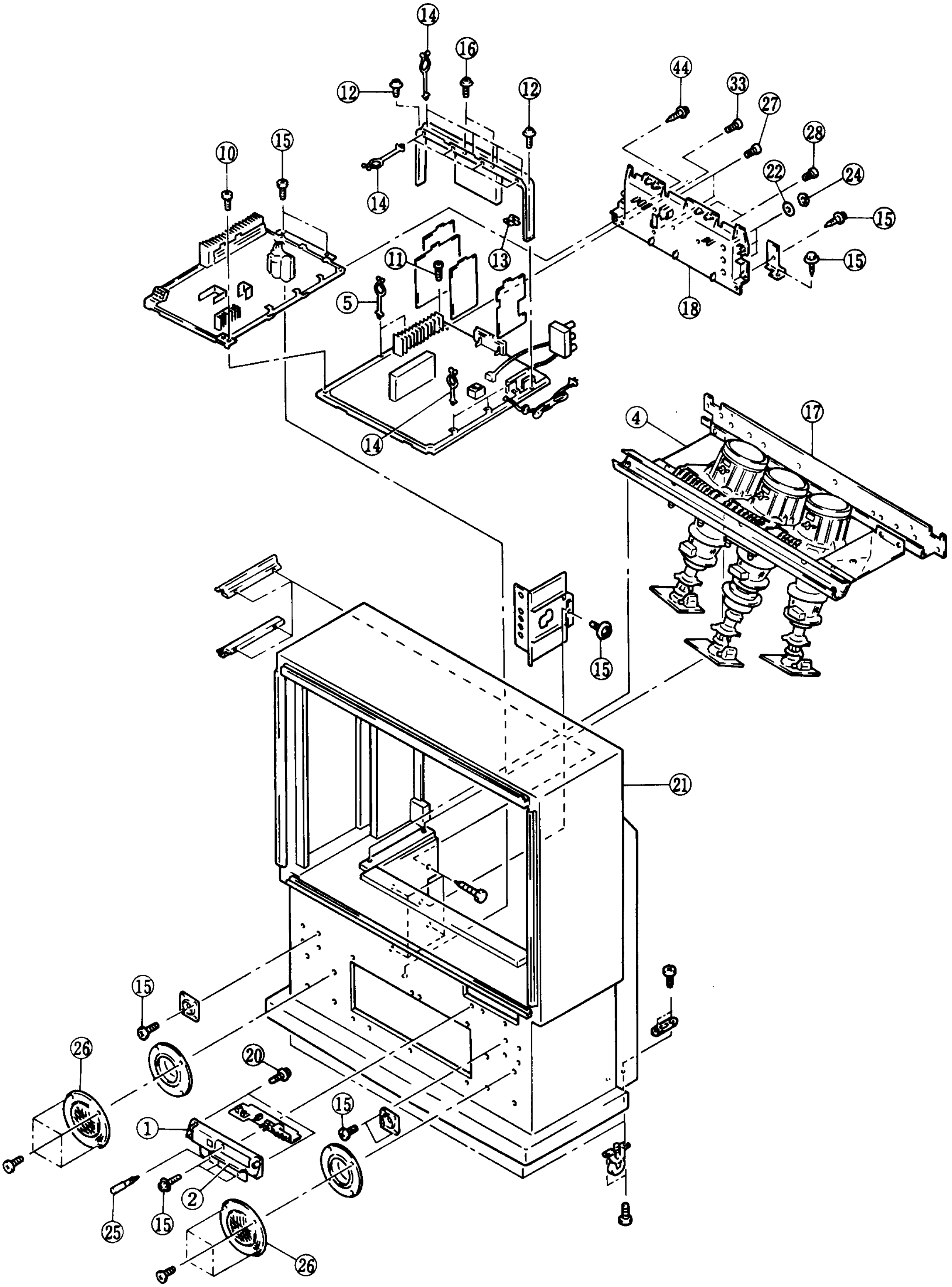
⑮
⑨

EXPLODED VIEW (2/3)


⑭
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⑭
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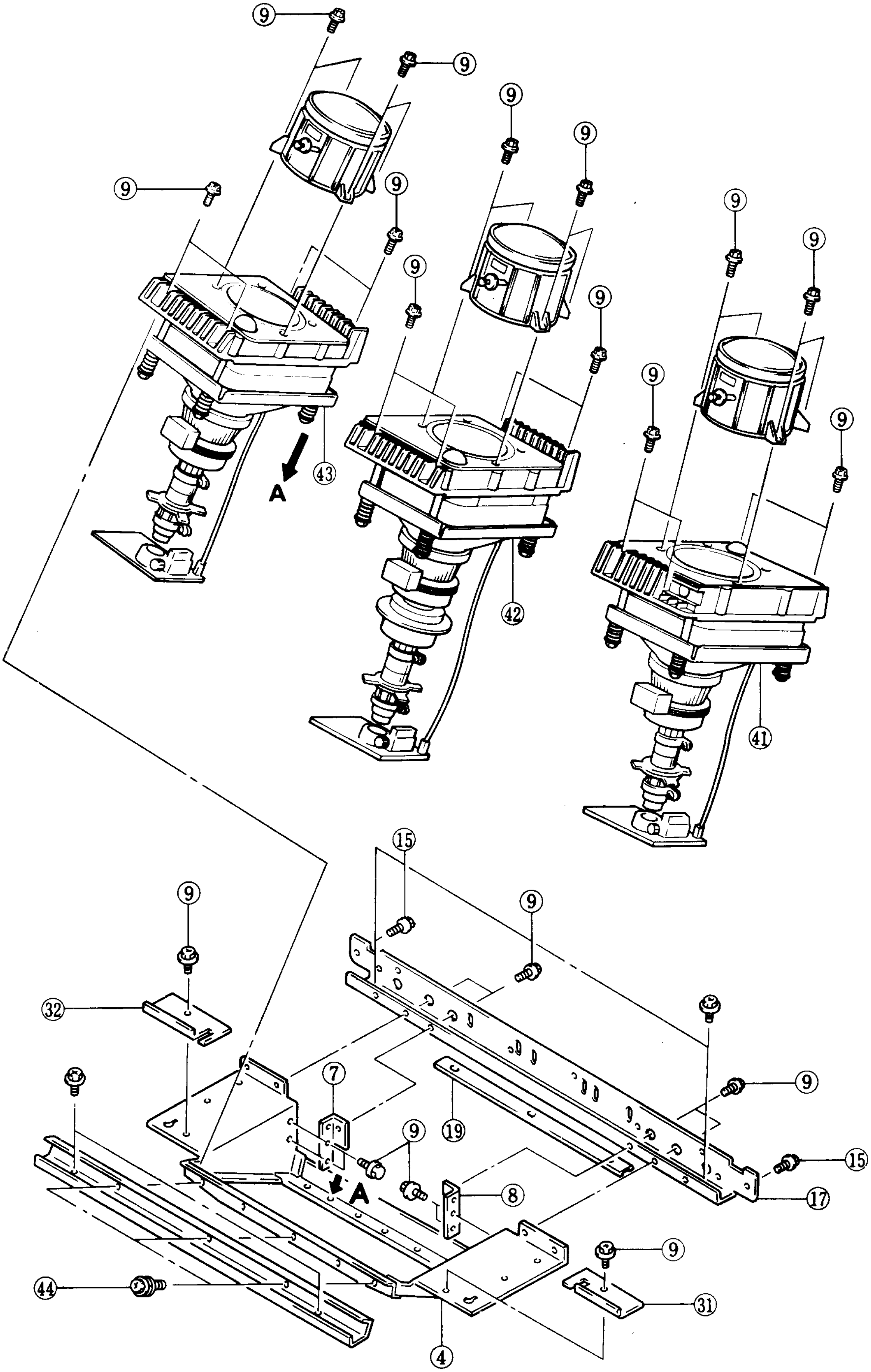
EXPLODED VIEW (3/3)


9
9
9
9
9
9
9
9
9
9
9
9
9
43
A
42
41
15
9
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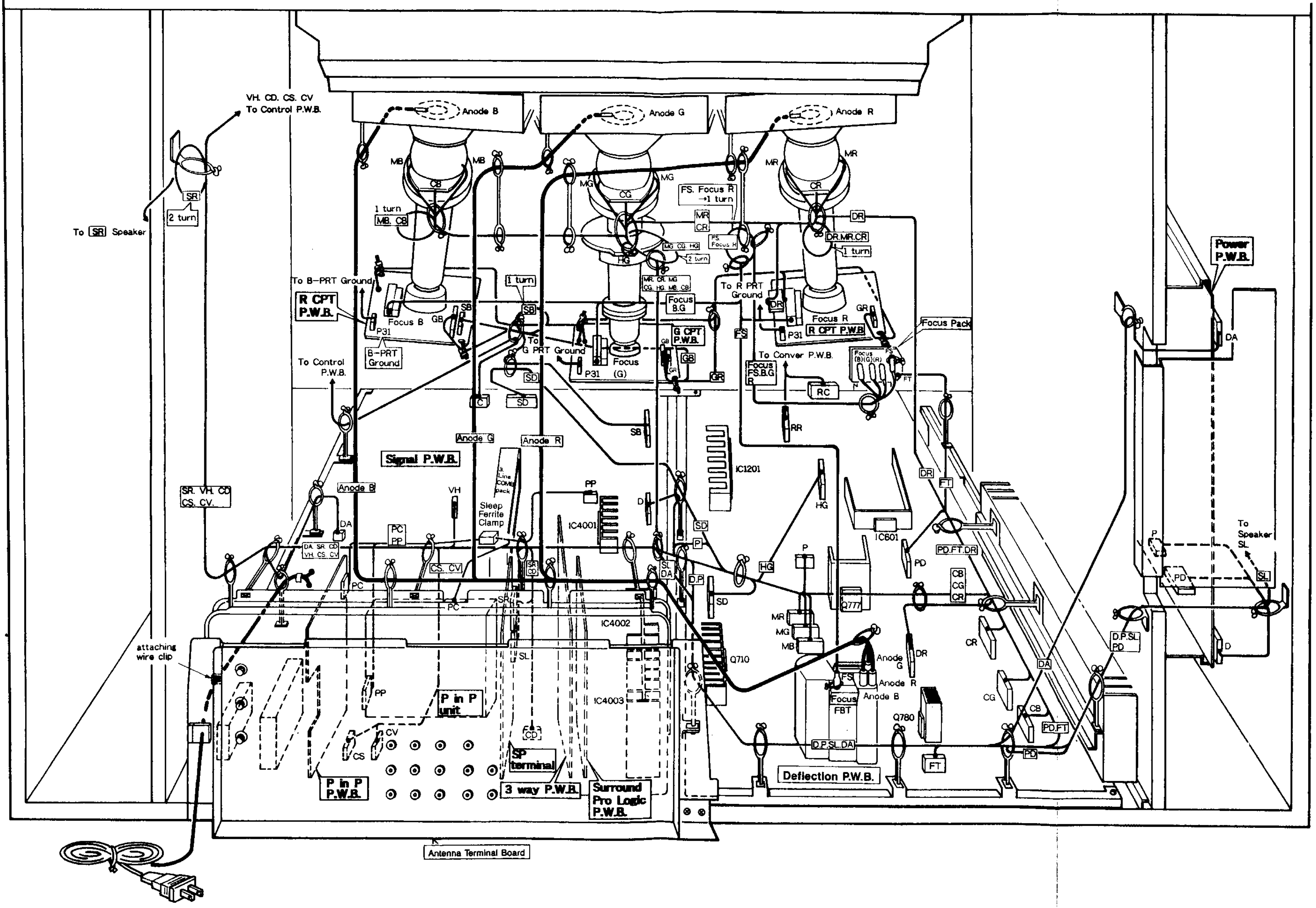
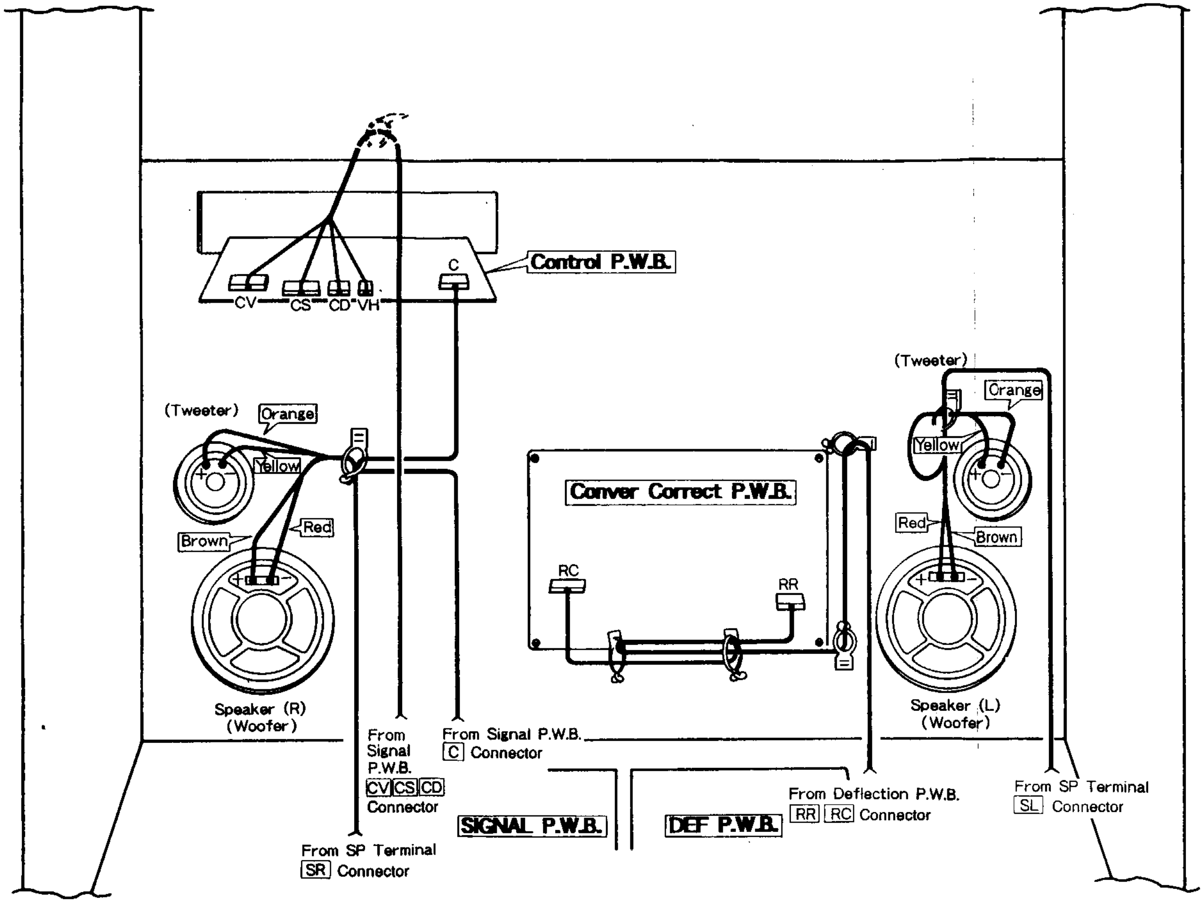
9
7
9
19
9
15
17
8
A
9
44
31
4

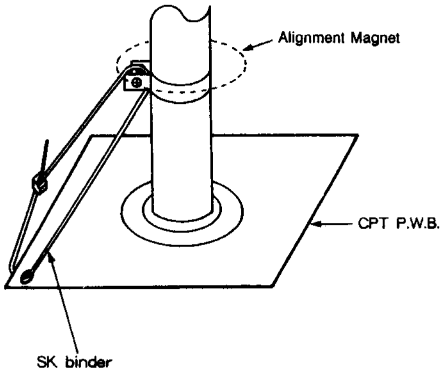
WIRING DIAGRAM


VH. CD. CS. CV
To Control P.W.B.
SR
2 turn
To SR Speaker
Anode B
Anode G
Anode R
MB
MB
CB
MG
MG
CG
MR
MR
CR
1 turn
MB. CB
FS. Focus R
→1 turn
MR
CR
FS
Focus R
MG CG HG
2 turn
HG
DR
DR.MR.CR
1 turn
To B-PRT Ground
R CPT
P.W.B.
Focus B
GB
SB
P31
B-PRT
Ground
1 turn
SB
To
G PRT Ground
MR. CR. MG
CG. HG. MB. CB
Focus
B.G
G CPT
P.W.B.
GB
GB
GR
Focus
(G)
P31
To R PRT
Ground
DR
Focus R
R CPT P.W.B
P31
GR
Focus Pack
FS
To Conver P.W.B.
Focus
FS.B.G
R
GR
RC
Focus
(B)(G)(R)
FS
FT
To Control
P.W.B.
SD
C
SD
SB
RR
Anode G
Anode R
Signal P.W.B.
3 Line COMB pack
IC1201
VH
Sleep
Ferrite
Clamp
PP
D
IC4001
HG
SR. VH. CD
CS. CV
Anode B
DA
DA. SR. CD
VH. CS. CV
PC
PP
SD
P
CS. CV
PC
PC
SR
SR
CD
SL
DA
D.P
HG
P
SD
DR
FT
IC601
PD
PD.FT.DR
CB
CG
CR
Q777
MR
MG
MB
Power
P.W.B.
DA
To
Speaker
SL
P
PD
SL
D
IC4002
SL
attaching
wire clip
PP
P in P
unit
CV
CS
IC4003
Q710
FS
Focus
FBT
Anode
G
Anode R
Anode B
DR
CR
Q780
CG
DA
D.P.SL
PD
CB
PD.FT
PD
D.P.SL.DA
FT
CD
SP
terminal
P in P
P.W.B.
3 way P.W.B.
Surround
Pro Logic
P.W.B.
Deflection P.W.B.
Antenna Terminal Board

WIRING DIAGRAM


Control P.W.B.
CV
CS
CD
VH
C
(Tweeter)
Orange
Yellow
Brown
Red
Speaker (R)
(Woofer)
From Signal P.W.B.
CV CS CD Connector
From Signal P.W.B.
C Connector
From SP Terminal
SR Connector
SIGNAL P.W.B.
Conver Correct P.W.B.
RC
RR
DEF P.W.B.
From Deflection P.W.B.
RR RC Connector
(Tweeter)
Orange
Yellow
Red
Brown
Speaker (L)
(Woofer)
From SP Terminal
SL Connector

G-PRT only
clamping CPT P.W.B. with SK binder


Alignment Magnet
CPT P.W.B.
SK binder

REPLACEMENT PARTS LIST

PRODUCT SAFETY NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION
		CABINET
1	3209672	CONTROL PANEL ASSY
	3785043	PUSH LOCK A
	3811195	POWER KNOB
	3332453	SPRING FOR KNOB
2	3821102	DOOR ASSY
3	3462207	BACK COVER (HHEA MD)
6	3811971	BACK COVER DOOR
9	4524911	HEXAGON FLANGEHEAD 4X12
15	4520771	4X18 TAPPING SCREW W/WASHER
20	4137975	4X16 ZA R SCREW
21	3122991	CABINET ASSY B (HHEA MD)
21	3122992	CABINET ASSY K (HHEA MD)
	3742021	LEAD HOLDER (CABINET)
	4526351	SPACER
23	4288066	K55 UPPER MIRROR
25	3794331	PRESET DRIVER
26	3483211	SPEAKER COVER
29	4618172	RUBBER SPACER
30	4524912	HEXAGON FLANGEHEAD 4X16
34	3169602	REAR BOARD (HHEA MD)
35	4304282	COVER NET
36	4517997	4X12 SELF TAPPING SCREW
37	3727972	HOLDER-AC LINE CORD
38	3850473	SCREEN FRAME (H)
39	3850474	SCREEN FRAME (V)
40	3189412	SCREEN ASSY (HHEA MD)
		LENS-CRT-CHASSIS BLOCK
⚠ 4	4304553	CRT UNIT BRACKET
5	3700971	LEAD CLAMP
7	4305083	LENS-CRT UNIT METAL SUPPORT L
8	4305082	LENS-CRT UNIT METAL SUPPORT R
9	4524911	HEXAGON FLANGEHEAD 4X12
10	4159427	3X10 TAPPING SCREW W/WASHER
11	8781440	3X10 TAPPING SCREW
12	4518772	3X12 TNE
13	3716742	PLASTIC HOLDER
14	3746482	WIRE CLAMP
15	4520771	4X18 TAPPING SCREW W/WASHER
16	4520883	M3X12 SCREW WITH WASHER
17	4304343	BACK COVER SUPPORT METAL
18	3209492	TERMINAL BOARD ASSY
19	3853201	SUPPORT METAL COVER
22	4329271	WASHER (F)
24	4522901	NUT
27	4519503	3X12 TAPPING SCREW
28	4520232	4X16 DT SCREW
31	3447251	UNIT METAL COVER (A)
32	3447252	UNIT METAL COVER (B)
33	4519512	TAPPING SCREW 4X16MM
⚠ 41	4866383	LENS CRT B ASSY B (HHEA MD)
⚠ 42	4866382	LENS CRT B ASSY G (HHEA MD)
⚠ 43	4866384	LENS CRT B ASSY R (HHEA MD)
44	4530841	HEXAGON BOLT & W ASSY 4X16
	H410241	CASTER (HHEA MD)
	3470951	CASTER BASE (HHEA MD)
	8781638	4X12 TAPPING SCREW
		MISCELLANEOUS
⚠ E101	2443107	DEFLECTION YOKE V8-6.7ST
⚠ E101G	2443108	DEFLECTION YOKE V8-6.7ST ASSY
E103G	3810831	MAGNET SPACER
E104	2774965	BEAM ALIGN. MAGNET (HHEA MD)
E104G	2774962	BEAM ALIGNMENT MAGNET
⚠ E105G	2774976	FOCUS MAGNET (HHEA MD)
E202	2982471	300-75 VHF ADAPTER
E301	2573414	REM. CONT. CLU-950GR (HHEA MD)
E302	2573621	REM. CONTROL CLU-609 (HHEA MD)
⚠ E9001	2742559	AC POWER CORD
⚠ E9002	3772201	AC CORD HOLDER
⚠ E9003	3739671	CORD HOLDER
N201	4917302	OPERATING GUIDE
⚠ N200B	3393227	LENS SASS SP B
⚠ N200G	3393226	LENS SASS SP RG2
⚠ N200R	3393226	LENS SASS SP RG2
⚠ SP401	2414201	SPEAKER 160MMN
⚠ SP402	2414201	SPEAKER 160MMN
⚠ SP403	2410954	SPEAKER 50DGB (HHEA MD)
⚠ SP404	2410954	SPEAKER 50DGB (HHEA MD)
W811B	2692461	FOCUS LEAD WIRE (HHEA MD)
W811G	2692461	FOCUS LEAD WIRE (HHEA MD)
W811R	2692461	FOCUS LEAD WIRE (HHEA MD)

HITACHI

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HITACHI SERVICE MANUAL

NTSC | AP13 Chassis

YK No.0403E

50UX7B/K/W

R/C:CLU-950GR

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CAUTION: Before servicing this chassis, it is important that the service technician read the "Safety Precaution" and "Product Safety Notices" in this Service Manual.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by ⚠ on schmatics and on the parts list in this Service Data and its supplements and bulletins. Before servicing this chassis, it is important that the service technician read and follow the "Safety Precautions" and "Product Safety Notices" in this Service Manual.

* For continued x-radiation protection, replace picture tube with original type or Hitachi approved equivalent tipe.

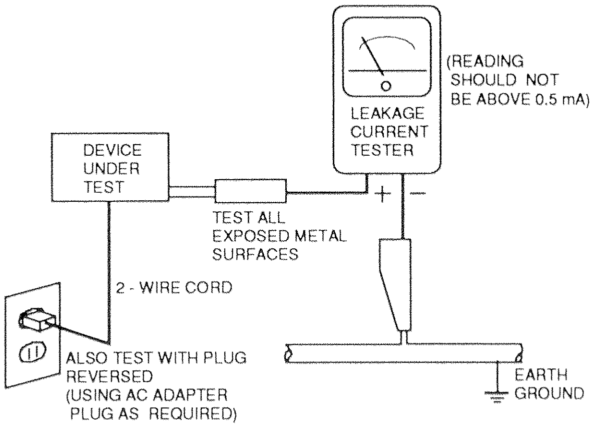
SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PROJECTION COLOR TELEVISION

May 1991 **YOKOHAMA WORKS**

SAFETY PRECAUTIONS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including, but not limited to the following items:
   a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
   b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
   c. **Antenna Cold Check** — With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohms or greater than 5.2 megohms, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.
   d. **Leakage Current Hot Check** — With the instrument completely reassembled, plug the AC line cord directly into a 120 V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamps. Reverse the instrument power cord plug in the outlet and repeat test.

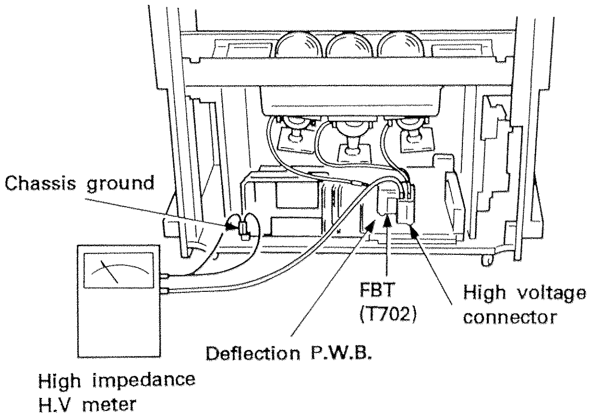

(READING SHOULD NOT BE ABOVE 0.5 mA)
LEAKAGE CURRENT TESTER
DEVICE UNDER TEST
+
−
TEST ALL EXPOSED METAL SURFACES
2 - WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

   e. **High Voltage** — This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may correctly be operated.
   f. **Serviceman warning** — With minimum Black Level and Picture, operating high voltage in this receiver is lower than **31.6kV.** In case any component having influenced on high voltage is replaced, confirm that high voltage with minimum Black Level and Picture is lower than **31.6kV.**
   To measure H.V. use a high impedance H.V. meter. Connect (−) to chassis earth and (+) to the CRT anode button. (See the following connection diagram).

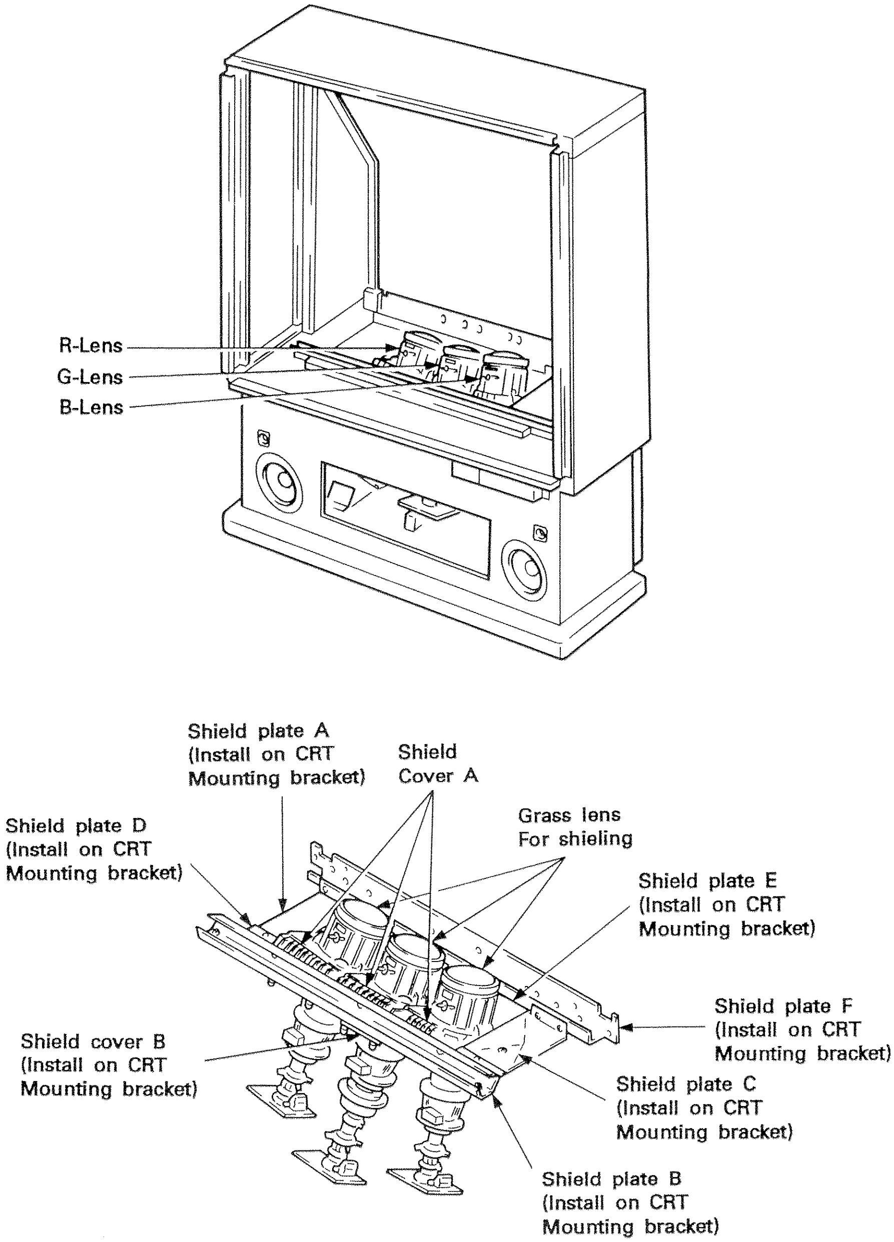
Note: Turn power switch off without fail before the connection with Anode button is made.



g. **X-radiation — TUBE:** The primary source of X radiation in this receiver is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X radiation emissions.
For continued X radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.
When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage component.
Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

h. **X-radiation Shield —**

1) This receiver is provided X-ray shield plates for the protection of X-radiation. Do not remove X-ray shield **plates A, B, C, D, E, F and shield covers A, B shown in Fig. 1 unnecessarily, when troubleshooting and/or making test measurements.**
2) To prevent X-radiation, after replacement of picture tube and lens, confirm these components to be fixed correctly to bracket and cabinet, and not to be taken off easily.


R-Lens
G-Lens
B-Lens
Shield plate A
(Install on CRT
Mounting bracket)
Shield
Cover A
Shield plate D
(Install on CRT
Mounting bracket)
Grass lens
For shieling
Shield plate E
(Install on CRT
Mounting bracket)
Shield plate F
(Install on CRT
Mounting bracket)
Shield cover B
(Install on CRT
Mounting bracket)
Shield plate C
(Install on CRT
Mounting bracket)
Shield plate B
(Install on CRT
Mounting bracket)

Detailling X-radiation shields

Fig. 1

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. **Design Alteration Warning** — Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to, circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer responsible for personal injury or property damage resulting therefrom.

4. **Picture Tube Implosion Protection Warning** — The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck.

5. **Hot Chassis Warning** — **a**. Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0 V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground. **b**. Some TV receiver chassis normally have 85 V AC (RMS) between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. **c**. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a**. near sharp edges, **b**. near thermally hot parts — be sure that leads and components do not touch thermally hot parts, **c**. the AC supply, **d**. high voltage, and **e**. antenna wiring. Always inspect in all areas for pinched, out-of-plate, or frayed wiring. Do not change spacing between components, and between components and the printed-circuit board. Check AC power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. **PRODUCT SAFETY NOTICE** — Many TV electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified Hitachi service data by shading on schematics and by a (⚠) in the parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in Hitachi service data parts list might create shock, fire, and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current Hitachi service literature. A subscription to, or additional copies of Service literature may be obtained at a normal charge from Hitachi.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS on page 2 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 2 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the instrument AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
   b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.
   Caution: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
   d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".
   The H.V. Distribution Box has an internal 400MΩ resistor (bleeder resistor) connected from the high voltage to ground. After power is removed from the instrument the high voltage will discharge through the high voltage bleeder resistor. If the tubes have high voltage after power is removed then the bleeder resistor is defective or the bleeder ground is disconnected.
3. Discharge the picture tubes anode at any of the R, G, or B outputs on the High Voltage distribution box only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube high voltage distribution box R, G, or B output, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemical on or near this instrument or any of its assemblies.
5. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90% - 99% strength).
   Caution: This is a flammable mixture.
   Unless specified otherwise in these service data, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service data might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.
9. Use with this instrument only the test fixtures specified in this service data.
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

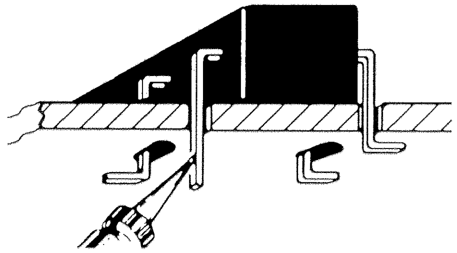
Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.
2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch, or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
   b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an antistatic, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.
6. Use the following soldering technique:
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
   b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron To Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas.)

"Small-signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heatsink mounting screw (if so equipped).
3. Carefully remove the transistor from the circuit board.
4. Insert new transistor in circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead out of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.
2. Securely crimp leads of replacement component around stake 1/8 inch from top.
3. Solder the connections.

   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off", the board. The following guidelines and procedures should be followed whenever this condition is encountered.

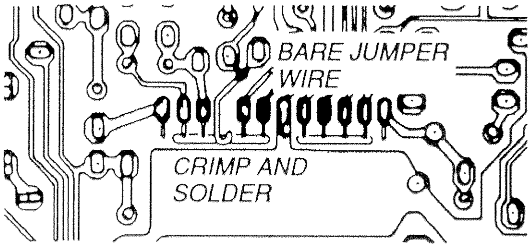
In Critical Copper Pattern Areas

High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these areas is designated as Critical Copper Pattern and is identified and illustrated in this service data in the section titled Safety Related Copper Pattern (see table of contents for page number). Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.

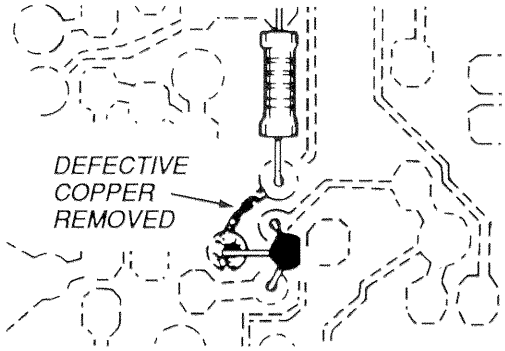


Install Jumper Wire and Solder

3. Bend a small "U" in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wirer from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

   CAUTION: Be sure the insulated jumper wirer is dressed so that it does not touch components or sharp edges.

Frequency Synthesis (FS) Tuning Systems

1. Always unplug the instrument AC power cord before disconnecting or reconnecting FS tuning system cables and before removing or reinserting FS tuning system modules.
2. The FS tuner must never be disconnected from the FS tuning control module while power is applied to the instrument.
3. When troubleshooting intermittent problems that might be caused by defective cable connection(s) to the FS tuning system, remove the instrument AC power as soon as the defective connector is found and finish confirming the bad connection with a continuity test. This procedure will reduce the probability of electrical overstress of the FS system semi-conductor components.

TECHNICAL CAUTIONS

High voltage limiter circuit operation check

1. Connect the high voltage voltmeter between the high voltage connector and chassis ground as shown Fig. 2.
2. Set the AC input voltage to 120V.
3. Set picture and black level control fully to + side (max.) of the on-screen indication.
4. Connect the jig as shown in Fig. 2 to POWER SUPPLY P.W.B.
5. Turn the 20 kΩ-B VR of the jig fully clockwise viewed from the knob side.
6. Turn on the set.
7. Gradually turn the 20 kΩ-B VR of the jig counterclockwise and check that the picture disappears when the high voltage is less than 38kV.
8. Turn off the set immediately after checking that the picture disappears.
9. Remove the jig and voltmeter.

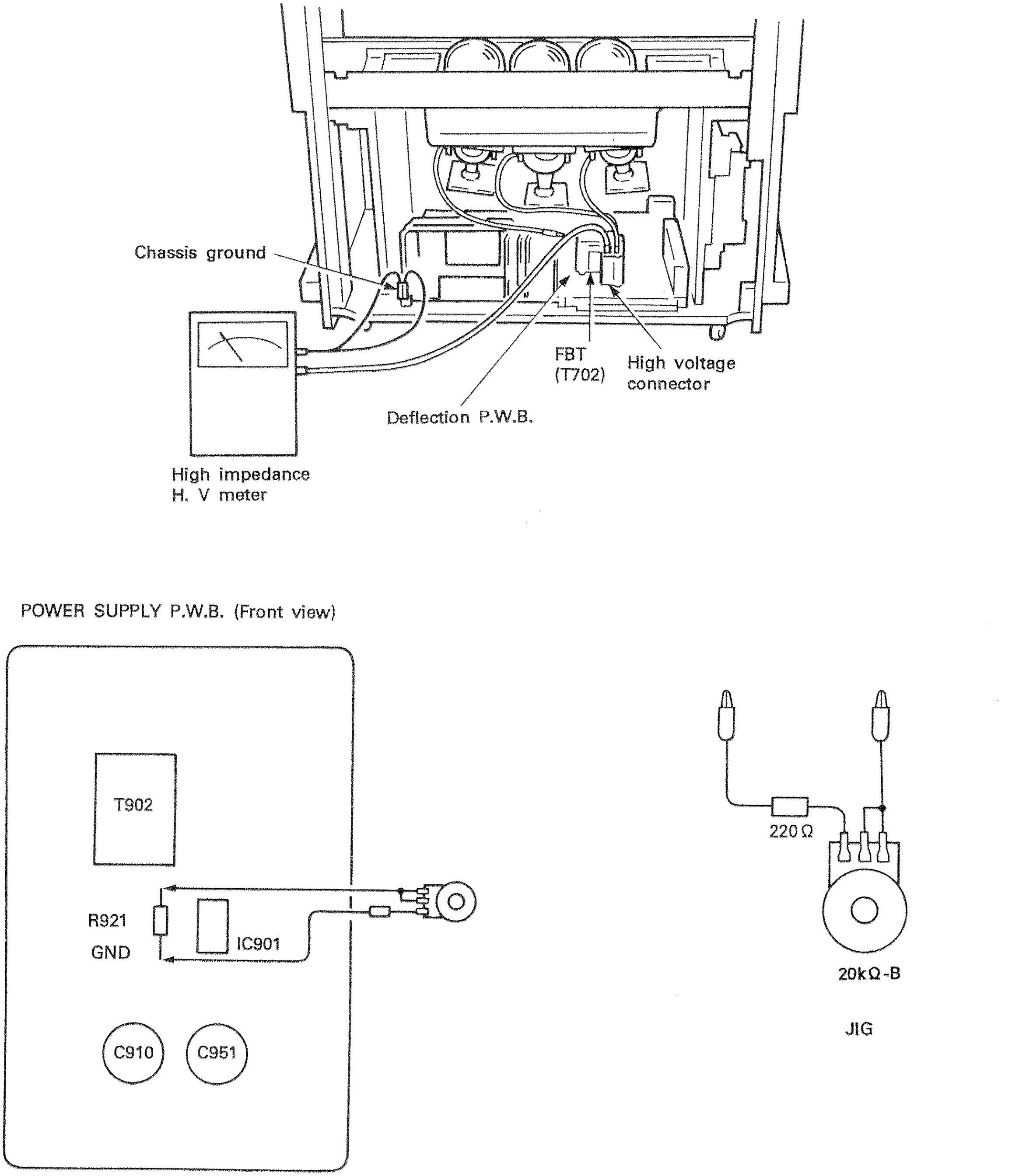

Chassis ground
FBT
(T702)
High voltage
connector
Deflection P.W.B.
High impedance
H. V meter
POWER SUPPLY P.W.B. (Front view)
T902
R921
GND
IC901
C910
C951
220Ω
20kΩ-B
JIG

Fig. 2

SPECIFICATIONS

Model:	50UX7 B / K / W	
Cathode-Ray tube:	80° defrection 7 inch. (180CZB22R/180CGB22G/ 180CZB22B)	
Power Input:	120 volts AC, 60Hz	
Power Consumption:	310 watts – Maximum 210 watts – Operating	
Antenna Impedance:	75 ohm Unbalanced VHF/UHF/CATV	
Receiving Channel:		CH
	VHF	2-13
	UHF	14-69
	EXT. Mid	(A-2)-(A-1), 4⁺
	CATV Mid	A-I
	CATV Super	J-W
	CATV Hyper	(W + 1)-(W + 28)
	CATV Ultra	(W + 29)-(W + 53)
Intermediate Frequency:	Picture I-F Carrier 45.75 MHz Sound I-F Carrier 41.25 MHz Color Sub Carrier 42.17MHz	
Video Input:	1 Voltp-p 75 ohm	
Video Output:	1 Voltp-p 75 ohm	
Audio Input:	0.4 volt rpm, 40 k ohm	
Stereo Audio Output:	0.4 volt rpm, 1 k ohm	
Audio Output Power:	Front – 10 watts rms per channel, 8 ohm impedance. Rear – 5 watts rms per channel, 8 ohm impedance.	

Anode Voltage:	30.0 kV (Zero Beam Current)	
Brightness:	500 ft-L Nominal (Peak White)	
Speakers:	2 Woofers – 6 inch (16 cm) round 2 Tweeters – 2 inch (5 cm) round	
Dimension:	Width . . .	43-5/32
	Height . .	51-57/64
	Depth . . .	26-31/64
Circuit Board Assemblies:	CPT (B) P.C.B CPT (G) P.C.B CPT (R) P.C.B Convergence Correction P.C.B Signal P.C.B Power Supply P.C.B Deflection P.C.B 3-Way P.C.B Pro-Logic P.C.B P in P Selector P.C.B SP Terminal P.C.B Control P.C.B	

CIRCUIT PROTECTION

Fuse (or Device)	Circuit Protected	Physical location
F901 5.0A-125V (AC)	Main Fuse	Signal Circuit Board
F903 4.0A-125V (DC)	〃	Power Supply Circuit Board
F904 4.0A-125V (DC)	Audio Output Circuit	Power Supply Circuit Board
F905 1.6A-125V (DC)	Deflection Circuit	Power Supply Circuit Board

GENERAL INFORMATION

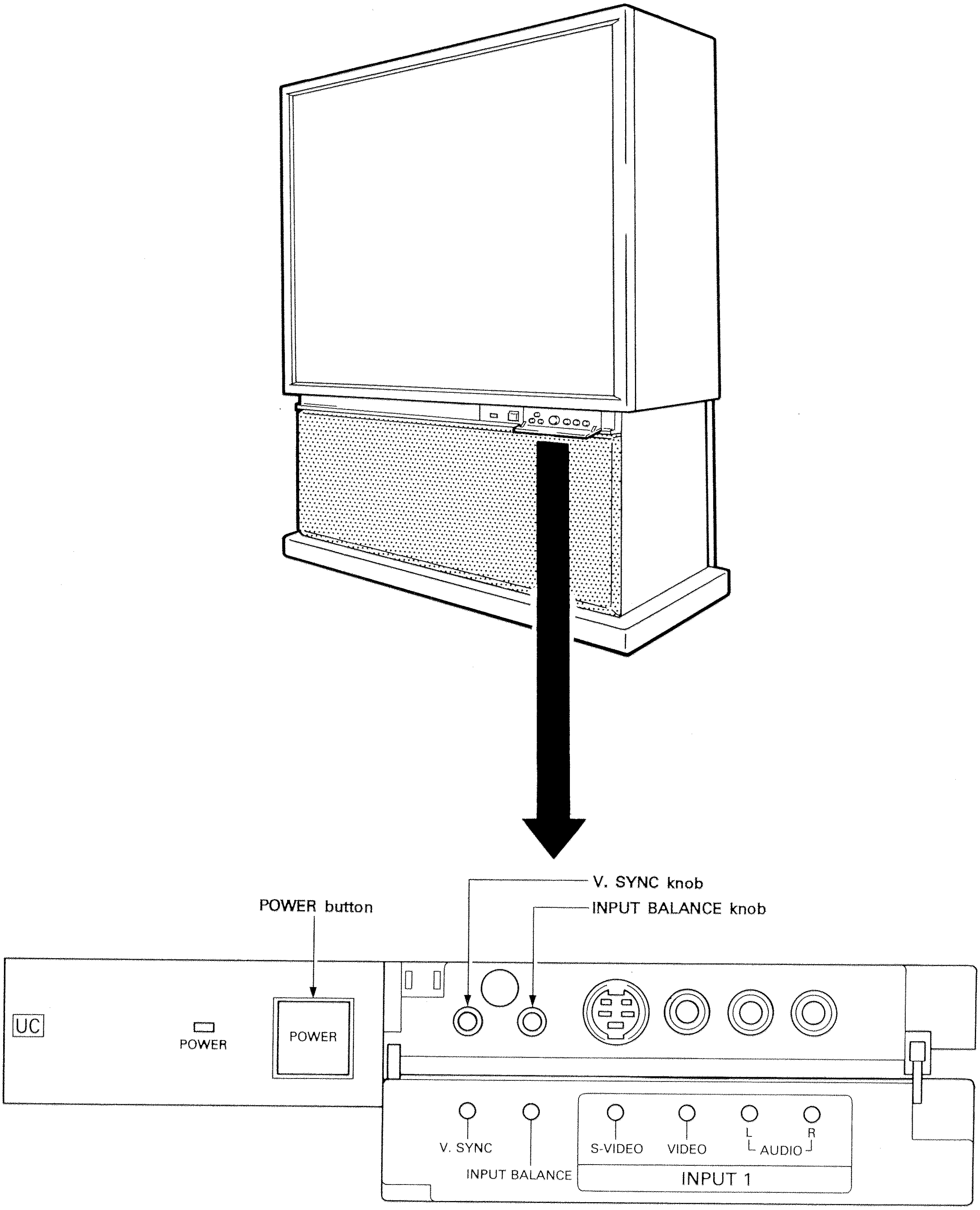

V. SYNC knob
INPUT BALANCE knob
POWER button
UC
POWER
POWER
V. SYNC
INPUT BALANCE
S-VIDEO
VIDEO
L
R
AUDIO
INPUT 1

Fig. 3 Control panel

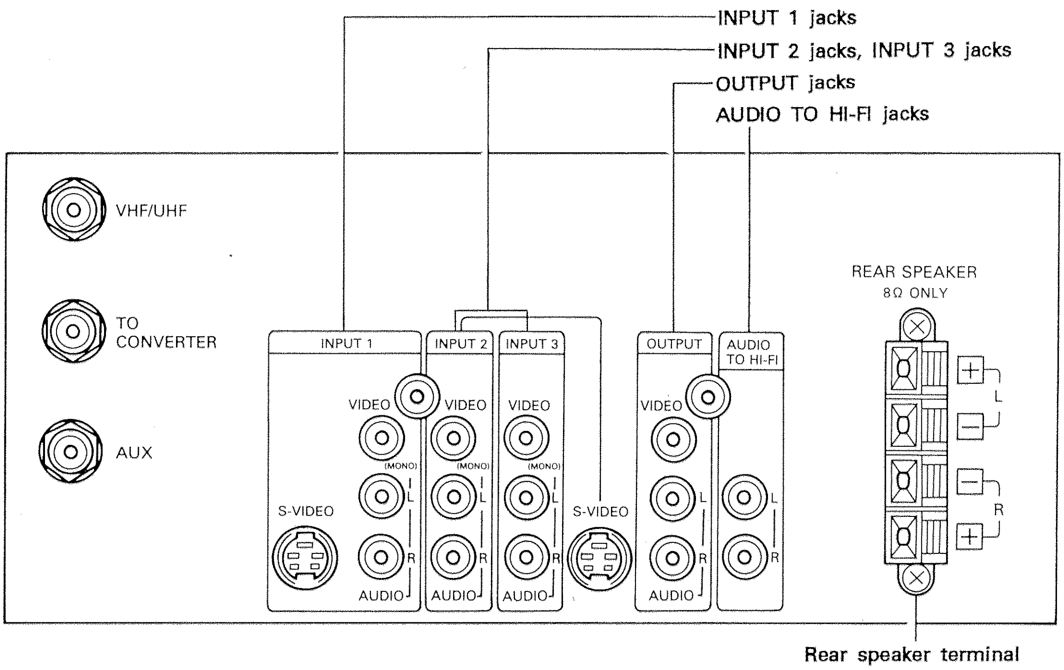
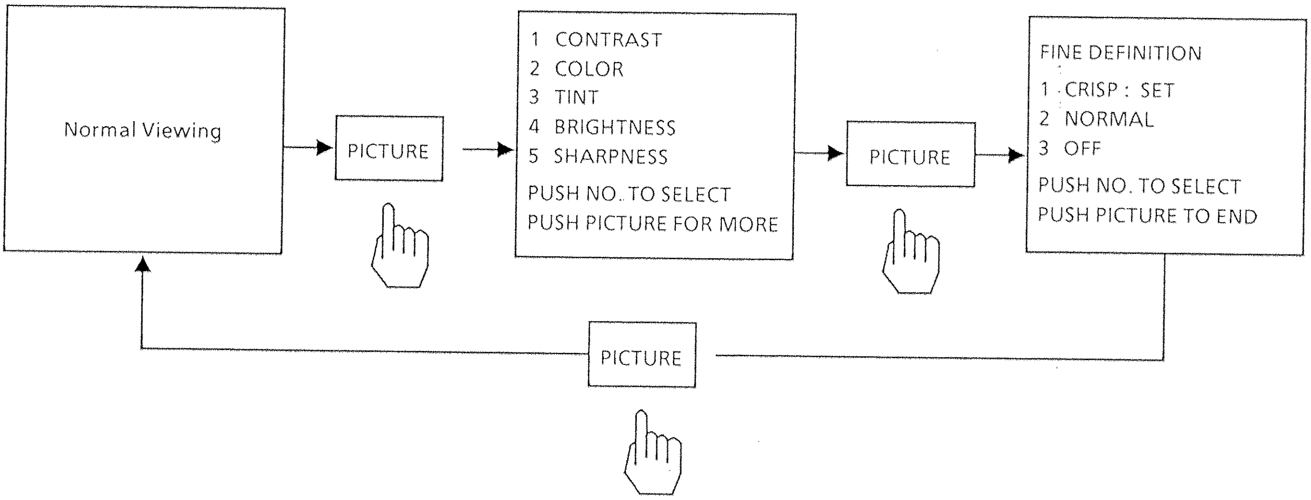

INPUT 1 jacks
INPUT 2 jacks, INPUT 3 jacks
OUTPUT jacks
AUDIO TO HI-FI jacks
VHF/UHF
TO CONVERTER
AUX
INPUT 1
INPUT 2
INPUT 3
OUTPUT
AUDIO TO HI-FI
VIDEO
(MONO)
L
R
AUDIO
S-VIDEO
REAR SPEAKER
8Ω ONLY
+
−
L
R
Rear speaker terminal

Fig. 4 Monitor connection panel

ADJUSTING FOR PICTURE AND SOUND FUNCTIONS

PICTURE BUTTON

Press this button to display the following picture adjustment:

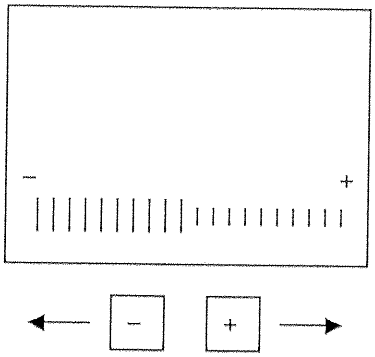

Normal Viewing
PICTURE
1 CONTRAST
2 COLOR
3 TINT
4 BRIGHTNESS
5 SHARPNESS
PUSH NO. TO SELECT
PUSH PICTURE FOR MORE
PICTURE
FINE DEFINITION
1 CRISP : SET
2 NORMAL
3 OFF
PUSH NO. TO SELECT
PUSH PICTURE TO END
PICTURE

Example – "CONTRAST" adjustment

(1) Press "PICTURE" button on Remote Control once displyas Picture menu.

1 CONTRAST
2 COLOR
3 TINT
4 BRIGHTNESS
5 SHARPNESS
PUSH NO. TO SELECT
PUSH PICTURE FOR MORE

(2) Press number button "1" to select CONTRAST.



Press " – " button to decrease contrast, or
press " + " button to increase contrast.

Adjustment for Picture

- CONTRAST adjustment

The "CONTRAST" function adjusts the overall brightness and contrast of the picture.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number button "1" to select CONTRAST.
(3) Press " + " button repeatedly to increase contrast, or press " – " button repeatedly to decrease contrast.

- COLOR adjustment

The "COLOR" function adjusts the amount of color in the picture.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number button "2" to select COLOR.
(3) Press " + " button repeatedly to inclease color, or press " – " button repeately to decrease color.

- TINT adjustment

The "TINT" function adjusts the color of flesh tones.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press numer button "3" to select TINT.
(3) Press " + " button repeatedly to add more red tint, or press " – " button repeatedly to add more green tint.

- BRIGHTNESS

The "BRIGHTNESS" function adjusts the brightness of the dark portion of the picture.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number button "4" to select BRIGHTNESS.
(3) Press " + " button repeatedly to increase brightness, or press " – " button repeatedly to decrease brightness.

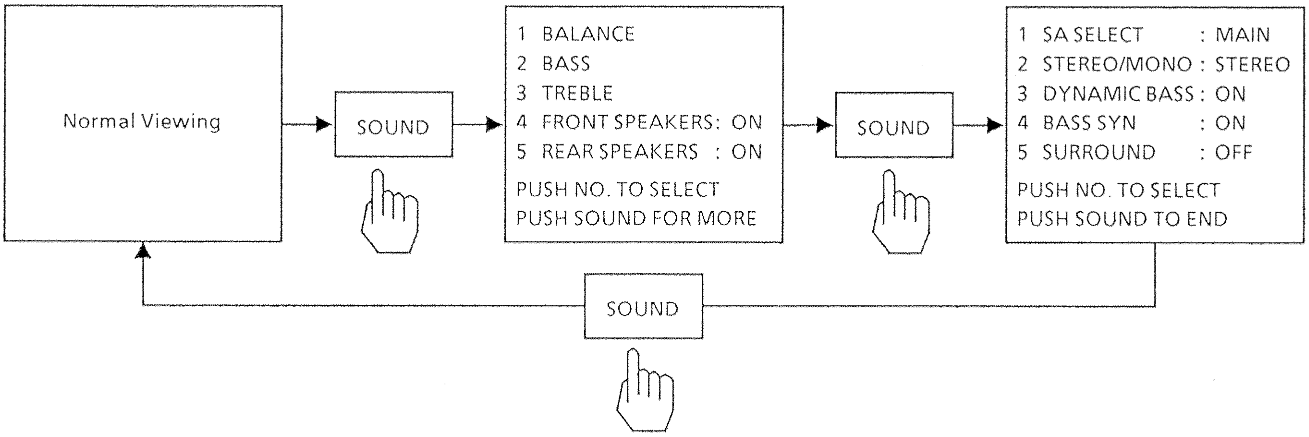
- SHARPNESS

The "SHARPNESS" function adjusts picture sharpness.

(1) Press PICTURE button once to get Picture adjustment menu.
(2) Press number btton "5" to select SHARPNESS.
(3) Press " + " button repeatedly to increase sharpness, or press " – " button repeatedly to decrease sharpness.

SOUND BUTTON

Press this button to display the following sound adjustment:

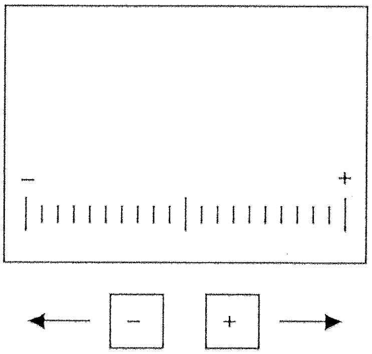

Normal Viewing
SOUND
1 BALANCE
2 BASS
3 TREBLE
4 FRONT SPEAKERS: ON
5 REAR SPEAKERS : ON
PUSH NO. TO SELECT
PUSH SOUND FOR MORE
SOUND
1 SA SELECT : MAIN
2 STEREO/MONO : STEREO
3 DYNAMIC BASS : ON
4 BASS SYN : ON
5 SURROUND : OFF
PUSH NO. TO SELECT
PUSH SOUND TO END
SOUND

Example – "TREBLE" adjustment

(1) Press "SOUND" button on remote control once displyas Sound menu.

1 BALANCE
2 BASS
3 TREBLE
4 FRONT SPEAKERS : ON
5 REAR SPEAKERS : ON
6 REAR VOLUME
PUSH NO. TO SELECT
PUSH SOUND FOR MORE

(2) Press number button "3" to select TREBLE.



Press " – " button to decrease treble, or press " + " button to increase treble.

Adjustment for Sound

- BALANCE adjustment

The "BALANCE" function adjusts the right / left balance of sound from the speakers.

(1) Press SOUND button once to get Sound adjustment menu.
(2) Press number button "1" to select BALANCE.
(3) Press " + " button repeatedly to increase sound level from right speaker, or press " – " button repeatedly to increase sound level from left speaker.

- BASS adjustment

The "BASS" function adjusts the low frequancy audio.

(1) Press SOUND button once to get Sound adjustment menu.
(2) Press number button "2" to select BASS.
(3) Press " + " button repeatedly to increase bass, or press " – " button repeatedly to decrease bass.

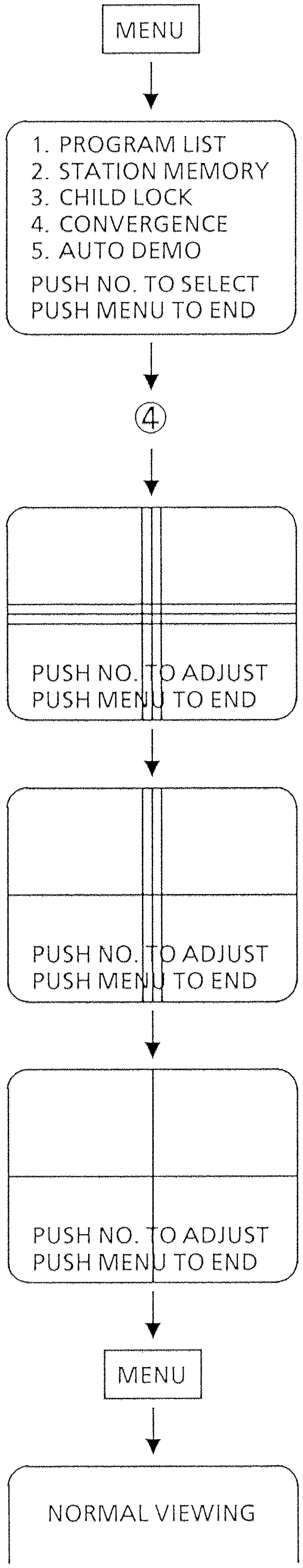
- TREBLE adjustment

The "TREBLE" function adjusts the high frequancy audio.

(1) Press SOUND button once to get Sound adjustment menu.
(2) Press number button "3" to select TREBLE.
(3) Press " + " button repeatedly to increase bass, or press " – " button repeatedly to decrease bass.

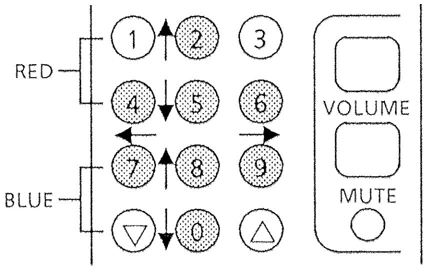
CONVERGENCE ADJUSTMENT

Static Convergence

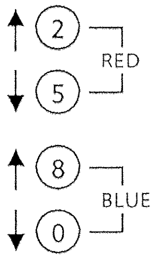

MENU
1. PROGRAM LIST
2. STATION MEMORY
3. CHILD LOCK
4. CONVERGENCE
5. AUTO DEMO
PUSH NO. TO SELECT
PUSH MENU TO END
④
PUSH NO. TO ADJUST
PUSH MENU TO END
PUSH NO. TO ADJUST
PUSH MENU TO END
PUSH NO. TO ADJUST
PUSH MENU TO END
MENU
NORMAL VIEWING

Use button on Remote to align colors to form white lines

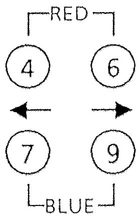
Remote Control


RED
BLUE
1
2
3
4
5
6
7
8
9
0
VOLUME
MUTE

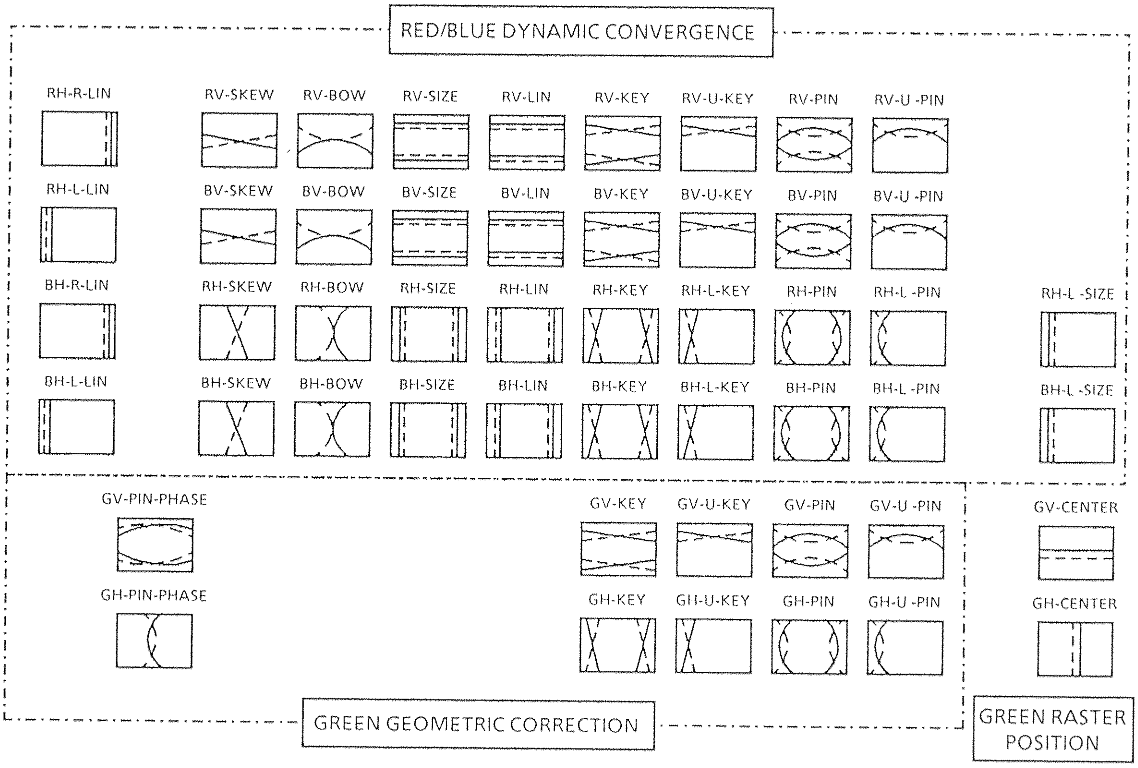
Vertical Position


2
5
RED
8
0
BLUE

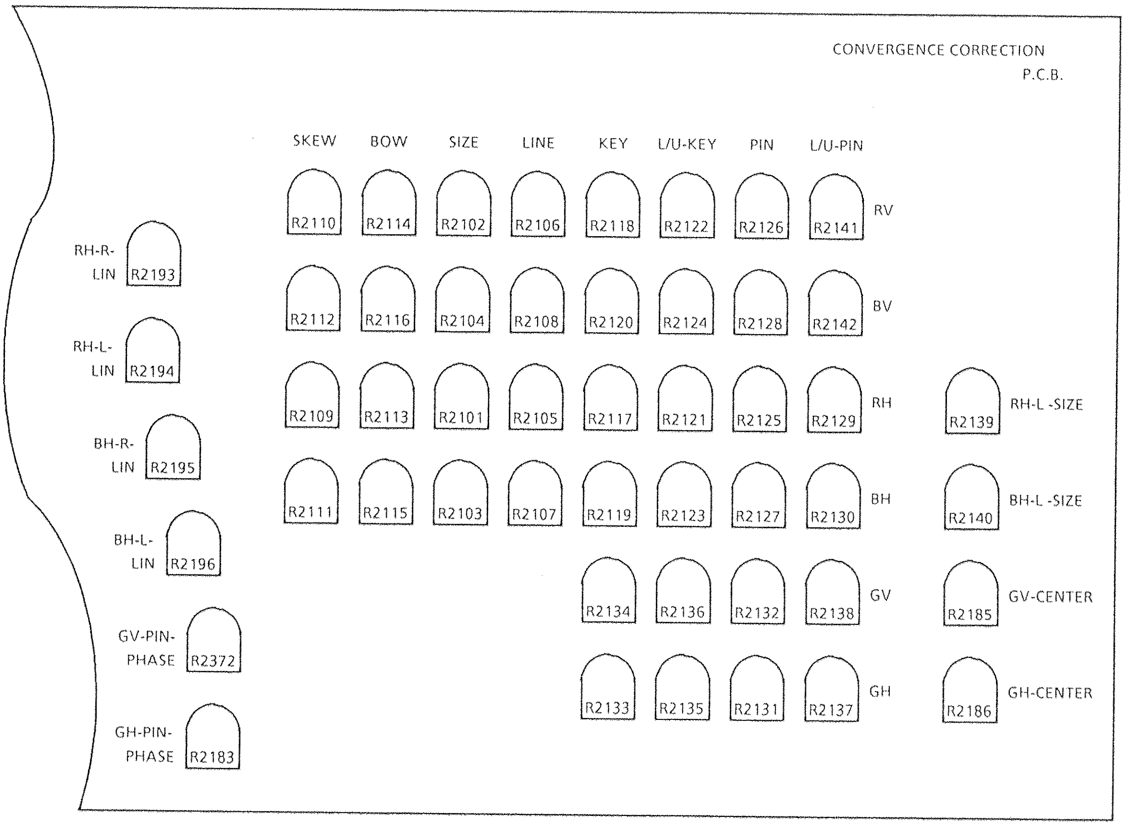
Horizontal Position


RED
4
6
7
9
BLUE

Dynamic Convergence


RED/BLUE DYNAMIC CONVERGENCE
RH-R-LIN
RV-SKEW
RV-BOW
RV-SIZE
RV-LIN
RV-KEY
RV-U-KEY
RV-PIN
RV-U -PIN
RH-L-LIN
BV-SKEW
BV-BOW
BV-SIZE
BV-LIN
BV-KEY
BV-U-KEY
BV-PIN
BV-U -PIN
BH-R-LIN
RH-SKEW
RH-BOW
RH-SIZE
RH-LIN
RH-KEY
RH-L-KEY
RH-PIN
RH-L -PIN
RH-L -SIZE
BH-L-LIN
BH-SKEW
BH-BOW
BH-SIZE
BH-LIN
BH-KEY
BH-L-KEY
BH-PIN
BH-L -PIN
BH-L -SIZE
GV-PIN-PHASE
GV-KEY
GV-U-KEY
GV-PIN
GV-U -PIN
GV-CENTER
GH-PIN-PHASE
GH-KEY
GH-U-KEY
GH-PIN
GH-U -PIN
GH-CENTER
GREEN GEOMETRIC CORRECTION
GREEN RASTER POSITION

Layout of the Adjustment VR


CONVERGENCE CORRECTION P.C.B.
SKEW
BOW
SIZE
LINE
KEY
L/U-KEY
PIN
L/U-PIN
RH-R-LIN R2193
RH-L-LIN R2194
BH-R-LIN R2195
BH-L-LIN R2196
GV-PIN-PHASE R2372
GH-PIN-PHASE R2183
R2110
R2114
R2102
R2106
R2118
R2122
R2126
R2141
RV
R2112
R2116
R2104
R2108
R2120
R2124
R2128
R2142
BV
R2109
R2113
R2101
R2105
R2117
R2121
R2125
R2129
RH
R2139 RH-L -SIZE
R2111
R2115
R2103
R2107
R2119
R2123
R2127
R2130
BH
R2140 BH-L -SIZE
R2134
R2136
R2132
R2138
GV
R2185 GV-CENTER
R2133
R2135
R2131
R2137
GH
R2186 GH-CENTER

CAUTIONS WHEN CONNECTING / DISCONNECTING THE HV CONNECTOR

Perform the following when the HV connector (anode connector) is removed or inserted for CPT replacement, etc.

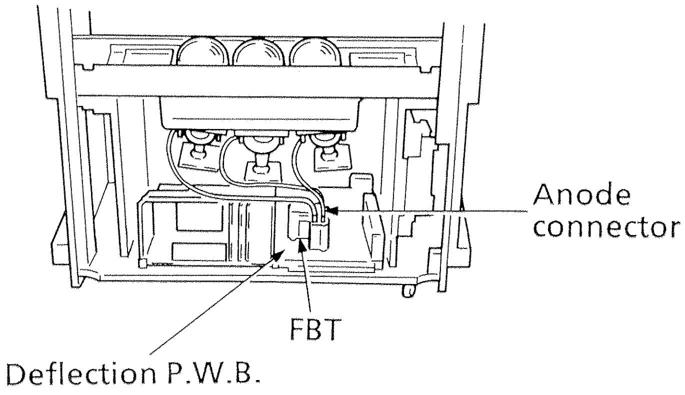

Anode connector
FBT
Deflection P.W.B.

Fig. 5

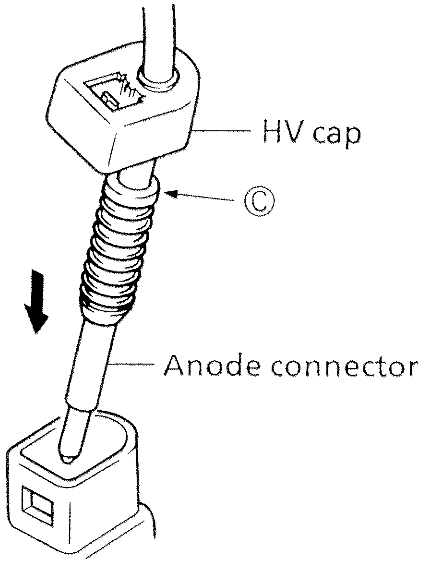

HV cap
Ⓒ
Anode connector

Fig. 7

- **During removal**

(1) Insert a small flat-bladed screwdriver (adjustment screwdriver : 5 - 7 mm wide and 0.2 - 0.3 mm thick) into section Ⓐ in Fig.6 and then push it in the direction of arrow Ⓑ. The lock will release with a click. (The state in Fig.8 - (1) will change to that in Fig.8 - (2).)

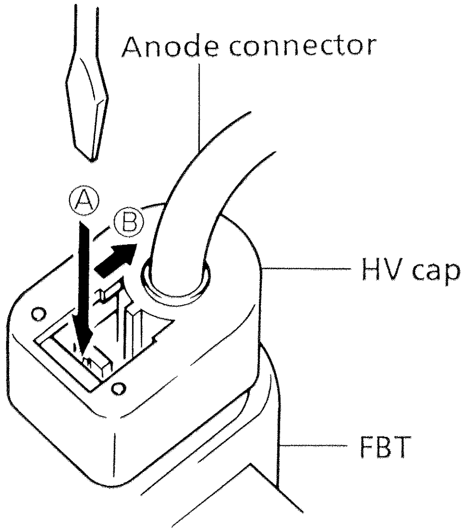

Anode connector
Ⓐ
Ⓑ
HV cap
FBT

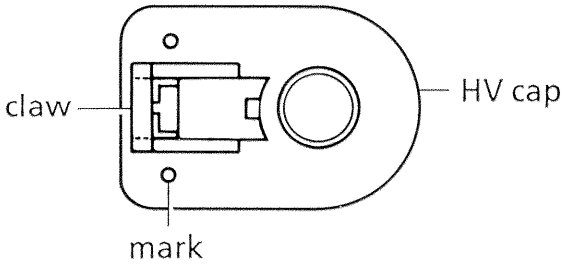
Fig. 6

(2) Remove the HV cap and remove the anode connector (Fig. 7).

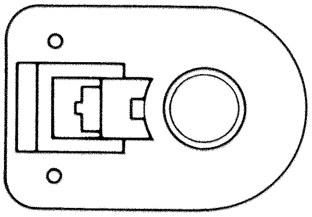
- **During insertion**

(1) Insert the anode connector deep into the FBT (to section Ⓒ in Fig.7) and then push the HV cap into the FBT until it clicks.

(2) Make sure the connector is securely inserted. (Check that the claw is at the mark on the HV cap shown as in Fig.8 - (1).)


claw
HV cap
mark

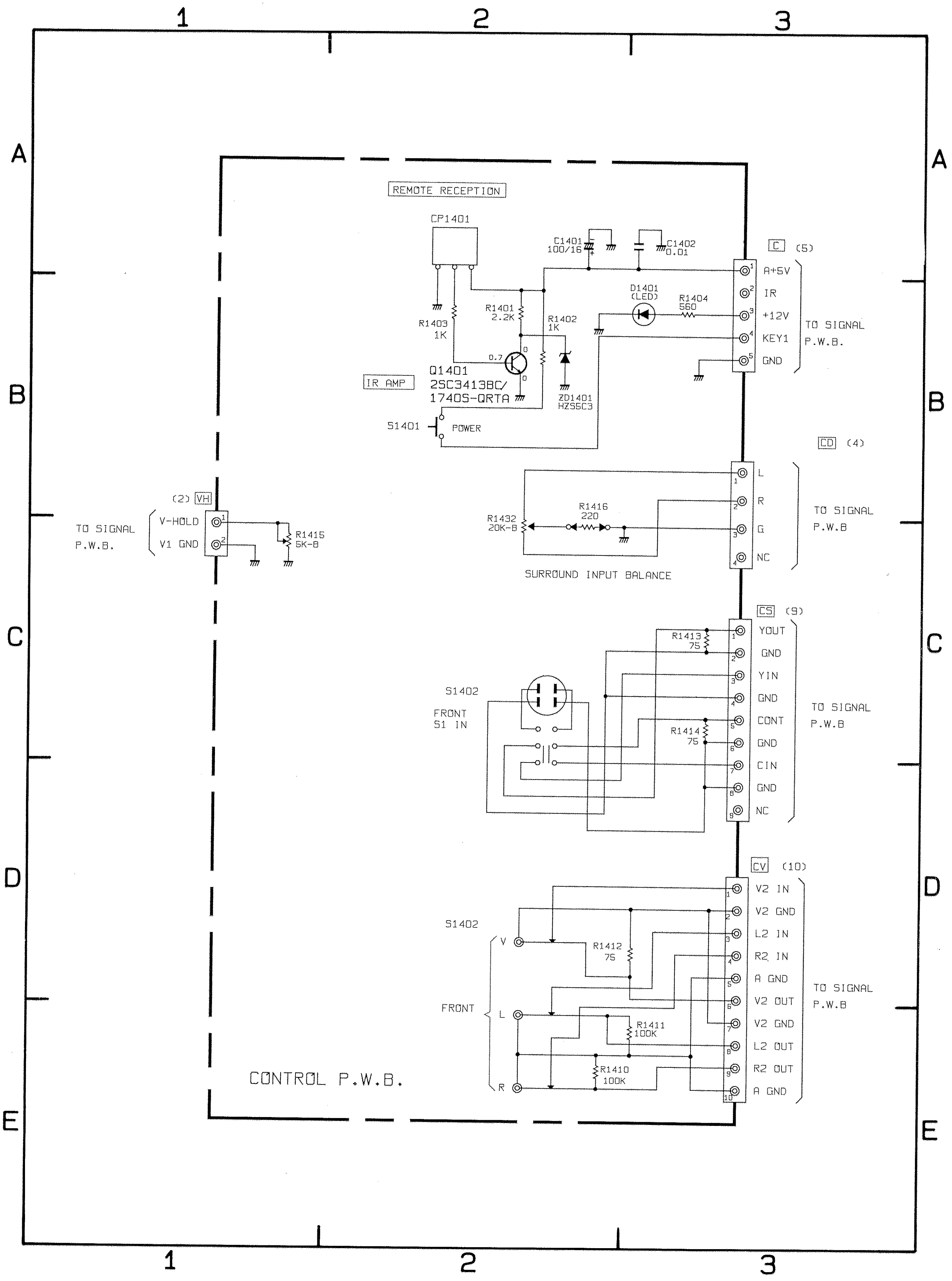
(1) Lock on
(When connector is inserted)



(2) Release
(When connector is removed)

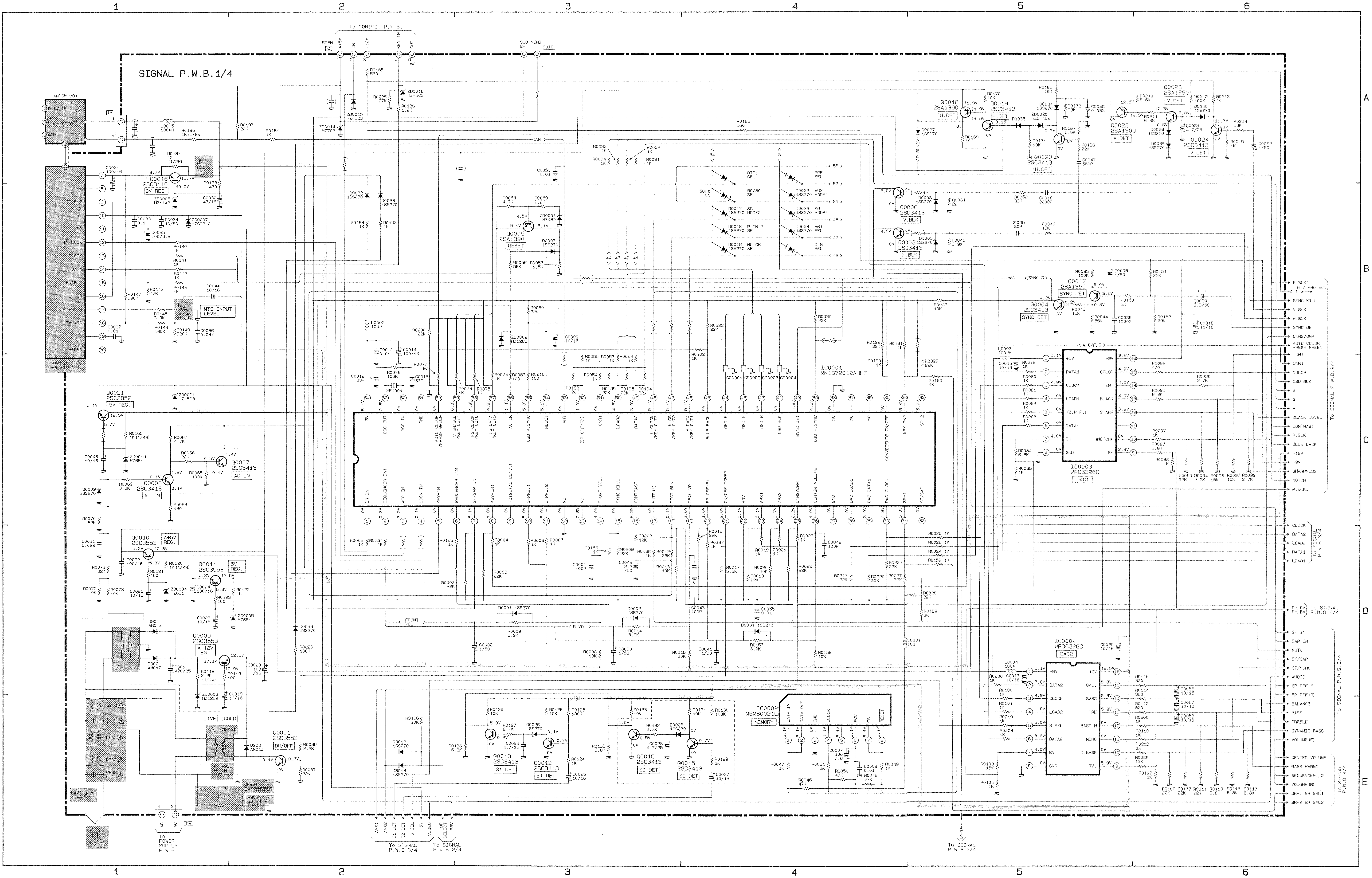
Fig. 8

CIRCUIT DIAGRAM


1
2
3
A
B
C
D
E
REMOTE RECEPTION
CP1401
C1401
100/16
C1402
0.01
R1403
1K
R1401
2.2K
R1402
1K
0.7
0
0
Q1401
2SC3413BC/
1740S-QRTA
IR AMP
ZD1401
HZS5C3
S1401
POWER
D1401
(LED)
R1404
560
C (5)
A+5V
IR
+12V
KEY1
GND
TO SIGNAL
P.W.B.
CD (4)
L
R
G
NC
TO SIGNAL
P.W.B
R1432
20K-B
R1416
220
SURROUND INPUT BALANCE
(2) VH
TO SIGNAL
P.W.B.
V-HOLD
V1 GND
R1415
5K-B
CS (9)
YOUT
GND
YIN
GND
CONT
GND
CIN
GND
NC
TO SIGNAL
P.W.B
R1413
75
R1414
75
S1402
FRONT
S1 IN
CV (10)
V2 IN
V2 GND
L2 IN
R2 IN
A GND
V2 OUT
V2 GND
L2 OUT
R2 OUT
A GND
TO SIGNAL
P.W.B
S1402
FRONT
V
L
R
R1412
75
R1411
100K
R1410
100K
CONTROL P.W.B.

BASIC CIRCUIT DIAGRAM

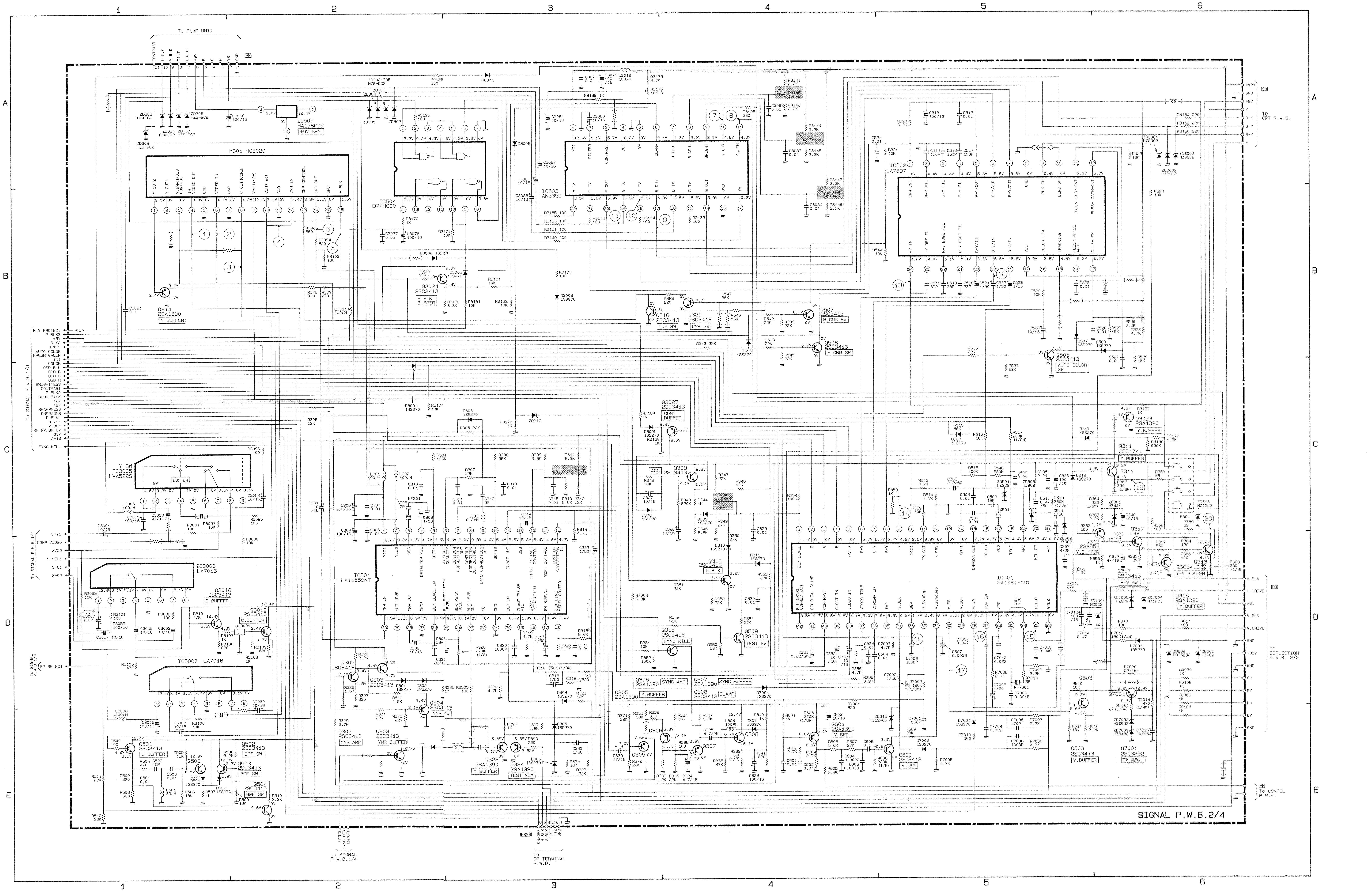
PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver though improper servicing.


SIGNAL P.W.B.1/4
To CONTROL P.W.B.
SUB MINI 2P
ANTSW BOX
VHF/UHF
To CONVERTER
AUX
FE0001 V8-A58F7
IC0001 MN1872012AHHF
IC0002 M6M80021L MEMORY
IC0003 μPD6326C DAC1
IC0004 μPD6326C DAC2
Q0016 2SC3116 9V REG.
Q0021 2SC3852 5V REG.
Q0007 2SC3413 AC IN
Q0008 2SC3413 AC.IN
Q0010 2SC3553 A+5V REG.
Q0011 2SC3553 5V REG.
Q0009 2SC3553 A+12V REG.
Q0001 2SC3553 ON/OFF
Q0005 2SA1390 RESET
Q0013 2SC3413 S1 DET
Q0012 2SC3413 S1 DET
Q0015 2SC3413 S2 DET
Q0018 2SA1390 H.DET
Q0019 2SC3413 H.DET
Q0020 2SC3413 H.DET
Q0022 2SA1309 V.DET
Q0023 2SA1390 V.DET
Q0024 2SC3413 V.DET
Q0006 2SC3413 V.BLK
Q0003 2SC3413 H.BLK
Q0017 2SA1390 SYNC DET
Q0004 2SC3413 SYNC DET
MTS INPUT LEVEL
LIVE COLD
RL901
CP901 CAPRISTOR
T901
F901 5A
GND SIDE
To POWER SUPPLY P.W.B.
To SIGNAL P.W.B.3/4
To SIGNAL P.W.B.2/4
To SIGNAL P.W.B.4/4
1 2 3 4 5 6
A B C D E

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver though improper servicing.

BASIC CIRCUIT DIAGRAM


To PinP UNIT
M301 HC3020
IC505 HA178M09
+9V REG.
IC504 HD74HC00
IC503 AN5352
IC502 LA7697
To CPT P.W.B.
Q314 2SA1390 Y.BUFFER
Q3024 2SC3413 H.BLK BUFFER
Q316 2SC3413 CNR SW
Q321 2SC3413 CNR SW
Q507 2SC3413 H.CNR SW
Q508 2SC3413 H.CNR SW
Q505 2SC3413 AUTO COLOR SW
To SIGNAL P.W.B.1/3
Y-SW IC3005 LVA522S
IC3006 LA7016
IC3007 LA7016
Q3018 2SC3413 C.BUFFER
Q3019 2SC3413 C.BUFFER
IC301 HA11559NT
Q3027 2SC3413 CONT BUFFER
Q309 2SC3413 ACC
Q310 2SC3413 P.BLK
Q315 2SC3413 SYNC KILL
Q509 2SC3413 TEST SW
IC501 HA11511CNT
Q3023 2SA1390 Y.BUFFER
Q311 2SC1741 Y.BUFFER
Q312 2SA854 Y.BUFFER
Q317 2SC3413 T-Y SW
Q318 2SA1390 Y.BUFFER
Q313 2SC3413 T-Y BUFFER
To DEFLECTION P.W.B. 2/2
To CONTOL P.W.B.
To SIGNAL P.W.B.1/4
Q302 2SC3413 YNR AMP
Q303 2SC3413 YNR BUFFER
Q304 2SC3413 YNR SW
Q305 2SA1390 Y.BUFFER
Q306 2SA1390 SYNC AMP
Q307 2SA1390 SYNC BUFFER
Q308 2SC3413 CLAMP
Q323 2SA1390 Y.BUFFER
Q324 2SA1390 TEST MIX
Q501 2SC3413 C.BUFFER
Q502 2SC3413 BPF SW
Q503 2SC3413 BPF SW
Q504 2SC3413 BPF SW
Q601 2SA1390 V.SEP
Q602 2SC3413 V.SEP
Q603 2SC3413 V.BUFFER
Q7001 2SC3852 9V REG.
To SIGNAL P.W.B.1/4
To SP TERMINAL P.W.B.
SIGNAL P.W.B.2/4

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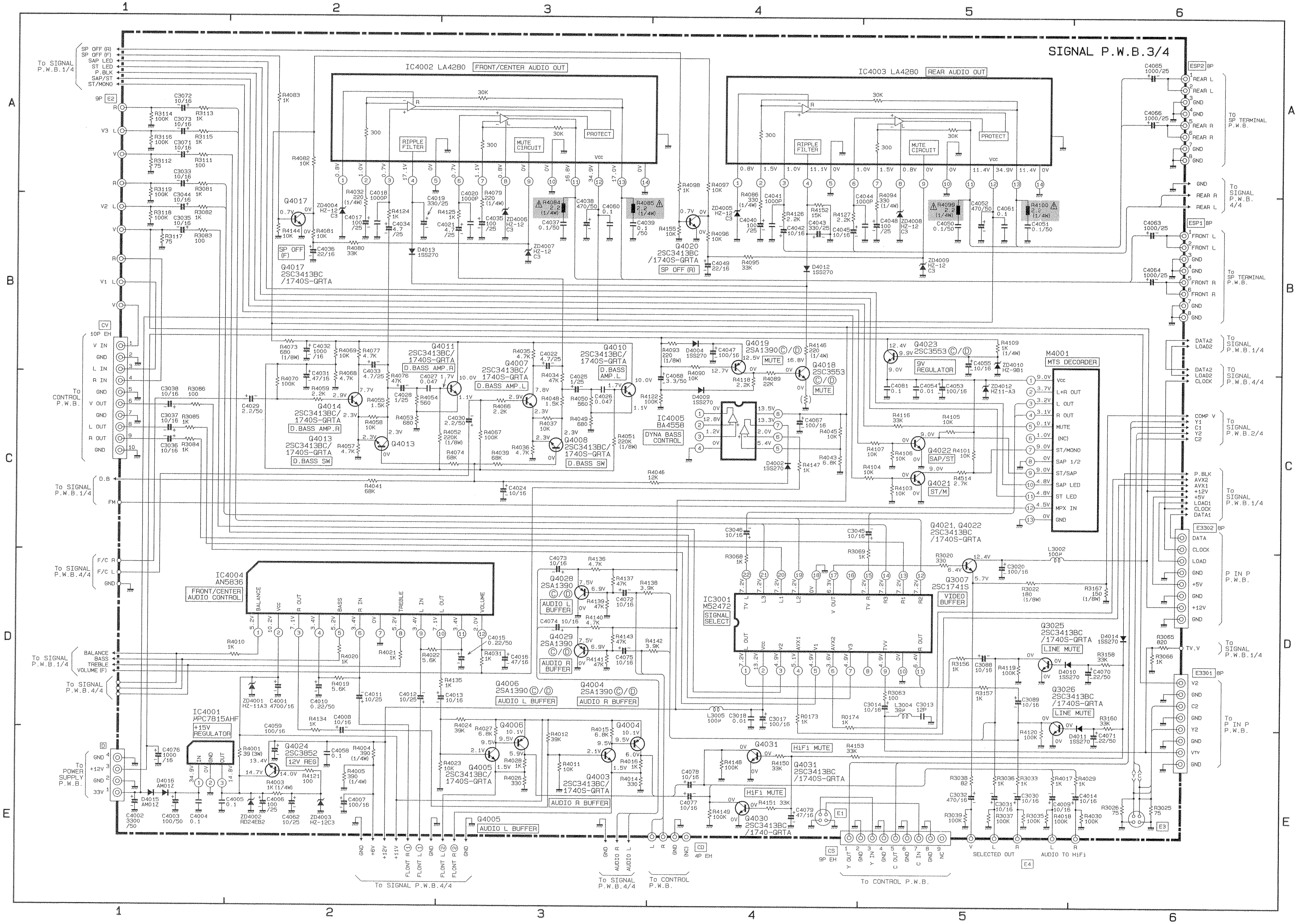
BASIC CIRCUIT DIAGRAM


SIGNAL P.W.B.3/4
IC4002 LA4280 FRONT/CENTER AUDIO OUT
IC4003 LA4280 REAR AUDIO OUT
RIPPLE FILTER
MUTE CIRCUIT
PROTECT
IC4004 AN5836 FRONT/CENTER AUDIO CONTROL
IC4005 BA4558 DYNA BASS CONTROL
IC3001 M52472 SIGNAL SELECT
IC4001 μPC7815AHF +15V REGULATOR
M4001 MTS DECORDER
Q4011 2SC3413BC/1740S-QRTA D.BASS AMP.R
Q4007 2SC3413BC/1740S-QRTA D.BASS AMP.L
Q4010 2SC3413BC/1740S-QRTA D.BASS AMP.L
Q4014 2SC3413BC/1740S-QRTA D.BASS AMP.R
Q4013 2SC3413BC/1740S-QRTA D.BASS SW
Q4008 2SC3413BC/1740S-QRTA D.BASS SW
Q4017 2SC3413BC/1740S-QRTA SP OFF (F)
Q4020 2SC3413BC/1740S-QRTA SP OFF (R)
Q4019 2SA1390 MUTE
Q4018 2SC3553 MUTE
Q4023 2SC3553 9V REGULATOR
Q4022 SAP/ST
Q4021 ST/M
Q4021, Q4022 2SC3413BC/1740S-QRTA
Q3007 2SC1741S VIDEO BUFFER
Q3025 2SC3413BC/1740S-QRTA LINE MUTE
Q3026 2SC3413BC/1740S-QRTA LINE MUTE
Q4028 2SA1390 AUDIO L BUFFER
Q4029 2SA1390 AUDIO R BUFFER
Q4006 2SA1390 AUDIO L BUFFER
Q4004 2SA1390 AUDIO R BUFFER
Q4005 2SC3413BC/1740S-QRTA AUDIO L BUFFER
Q4003 2SC3413BC/1740S-QRTA AUDIO R BUFFER
Q4024 2SC3852 12V REG
Q4031 2SC3413BC/1740S-QRTA HiFi MUTE
Q4030 2SC3413BC/1740-QRTA HiFi MUTE
To SIGNAL P.W.B.1/4
To CONTROL P.W.B.
To SIGNAL P.W.B.4/4
To POWER SUPPLY P.W.B.
To SP TERMINAL P.W.B.
To SIGNAL P.W.B.2/4
To P IN P P.W.B.
TO SIGNAL P.W.B.4/4
To CONTROL P.W.B.
SELECTED OUT
AUDIO TO HiFi

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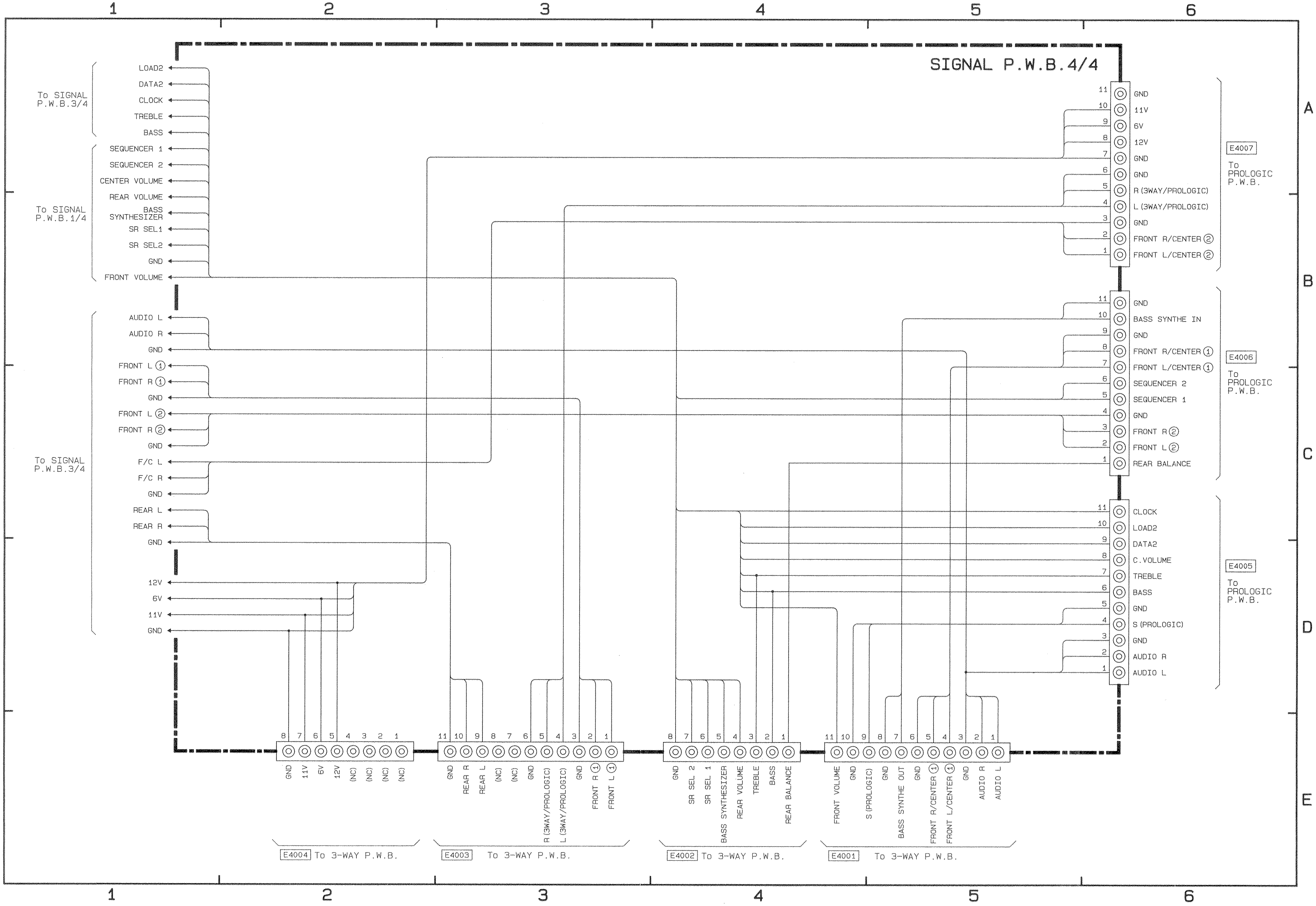

1
2
3
4
5
6
A
B
C
D
E
SIGNAL P.W.B.4/4
To SIGNAL P.W.B.3/4
LOAD2
DATA2
CLOCK
TREBLE
BASS
To SIGNAL P.W.B.1/4
SEQUENCER 1
SEQUENCER 2
CENTER VOLUME
REAR VOLUME
BASS SYNTHESIZER
SR SEL1
SR SEL2
GND
FRONT VOLUME
To SIGNAL P.W.B.3/4
AUDIO L
AUDIO R
GND
FRONT L ①
FRONT R ①
GND
FRONT L ②
FRONT R ②
GND
F/C L
F/C R
GND
REAR L
REAR R
GND
12V
6V
11V
GND
E4007
To PROLOGIC P.W.B.
11 GND
10 11V
9 6V
8 12V
7 GND
6 GND
5 R (3WAY/PROLOGIC)
4 L (3WAY/PROLOGIC)
3 GND
2 FRONT R/CENTER ②
1 FRONT L/CENTER ②
E4006
To PROLOGIC P.W.B.
11 GND
10 BASS SYNTHE IN
9 GND
8 FRONT R/CENTER ①
7 FRONT L/CENTER ①
6 SEQUENCER 2
5 SEQUENCER 1
4 GND
3 FRONT R ②
2 FRONT L ②
1 REAR BALANCE
E4005
To PROLOGIC P.W.B.
11 CLOCK
10 LOAD2
9 DATA2
8 C.VOLUME
7 TREBLE
6 BASS
5 GND
4 S (PROLOGIC)
3 GND
2 AUDIO R
1 AUDIO L
E4004 To 3-WAY P.W.B.
8 GND
7 11V
6 6V
5 12V
4 (NC)
3 (NC)
2 (NC)
1 (NC)
E4003 To 3-WAY P.W.B.
11 GND
10 REAR R
9 REAR L
8 (NC)
7 (NC)
6 GND
5 R (3WAY/PROLOGIC)
4 L (3WAY/PROLOGIC)
3 GND
2 FRONT R ①
1 FRONT L ①
E4002 To 3-WAY P.W.B.
8 GND
7 SR SEL 2
6 SR SEL 1
5 BASS SYNTHESIZER
4 REAR VOLUME
3 TREBLE
2 BASS
1 REAR BALANCE
E4001 To 3-WAY P.W.B.
11 FRONT VOLUME
10 GND
9 S (PROLOGIC)
8 GND
7 BASS SYNTHE OUT
6 GND
5 FRONT R/CENTER ①
4 FRONT L/CENTER ①
3 GND
2 AUDIO R
1 AUDIO L

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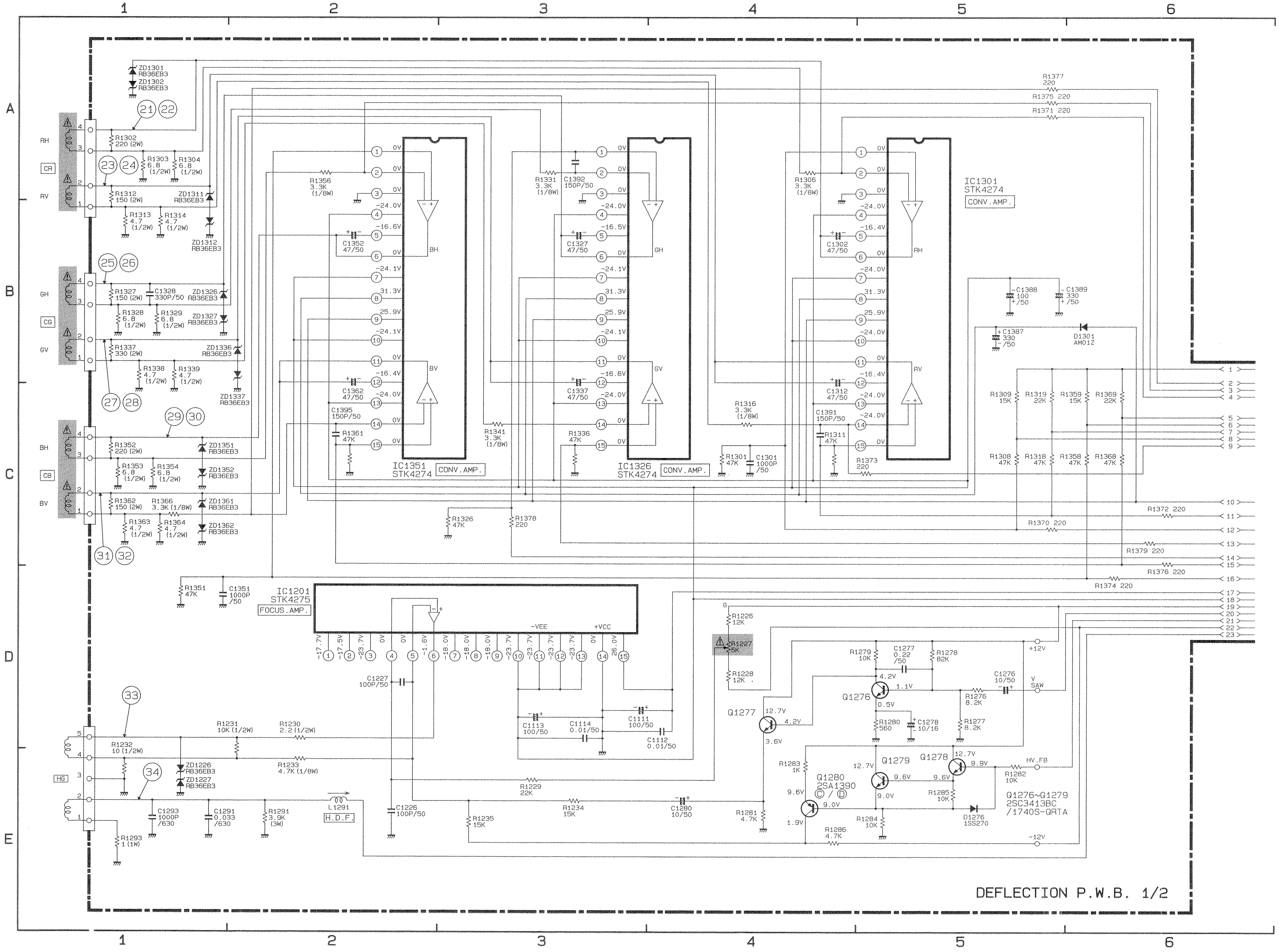
1
2
3
4
5
6
A
B
C
D
E
ZD1301 RB36EB3
ZD1302 RB36EB3
RH
CR
RV
R1302 220 (2W)
R1303 6.8 (1/2W)
R1304 6.8 (1/2W)
R1312 150 (2W)
ZD1311 RB36EB3
R1313 4.7 (1/2W)
R1314 4.7 (1/2W)
ZD1312 RB36EB3
GH
CG
GV
R1327 150 (2W)
C1328 330P/50
ZD1326 RB36EB3
R1328 6.8 (1/2W)
R1329 6.8 (1/2W)
ZD1327 RB36EB3
R1337 330 (2W)
ZD1336 RB36EB3
R1338 4.7 (1/2W)
R1339 4.7 (1/2W)
ZD1337 RB36EB3
BH
CB
BV
R1352 220 (2W)
ZD1351 RB36EB3
R1353 6.8 (1/2W)
R1354 6.8 (1/2W)
ZD1352 RB36EB3
R1362 150 (2W)
R1366 3.3K (1/8W)
ZD1361 RB36EB3
R1363 4.7 (1/2W)
R1364 4.7 (1/2W)
ZD1362 RB36EB3
R1356 3.3K (1/8W)
C1352 47/50
C1362 47/50
C1395 150P/50
R1361 47K
IC1351 STK4274
CONV. AMP.
R1331 3.3K (1/8W)
C1392 150P/50
C1327 47/50
C1337 47/50
R1341 3.3K (1/8W)
R1336 47K
IC1326 STK4274
CONV. AMP.
R1326 47K
R1378 220
R1306 3.3K (1/8W)
C1302 47/50
C1312 47/50
C1391 150P/50
R1311 47K
R1316 3.3K (1/8W)
R1301 47K
C1301 1000P /50
R1373 220
IC1301 STK4274
CONV. AMP.
0V
-24.0V
-16.6V
-24.1V
-31.3V
25.9V
-16.4V
-16.5V
-16.6V
BH
BV
GH
GV
RH
RV
R1377 220
R1375 220
R1371 220
C1388 100 /50
C1389 330 /50
C1387 330 /50
D1301 AM01Z
R1309 15K
R1319 22K
R1359 15K
R1369 22K
R1308 47K
R1318 47K
R1358 47K
R1368 47K
R1372 220
R1370 220
R1379 220
R1376 220
R1374 220
R1351 47K
C1351 1000P /50
IC1201 STK4275
FOCUS. AMP.
-VEE
+VCC
-17.7V
-17.5V
-23.7V
0V
-1.6V
-18.0V
-23.7V
26.0V
C1227 100P/50
C1113 100/50
C1114 0.01/50
C1111 100/50
C1112 0.01/50
R1226 12K
R1227 5K
R1228 12K
R1279 10K
C1277 0.22 /50
R1278 82K
+12V
C1276 10/50
V SAW
R1276 8.2K
Q1276
Q1277
4.2V
1.1V
0.5V
12.7V
3.6V
R1280 560
C1278 10/16
R1277 8.2K
Q1279
Q1278
9.9V
HV.FB
R1282 10K
R1283 1K
Q1280 2SA1390 Ⓒ / Ⓓ
9.6V
9.0V
R1285 10K
D1276 1SS270
Q1276~Q1279 2SC3413BC /1740S-QRTA
R1281 4.7K
R1284 10K
R1286 4.7K
1.9V
-12V
HG
R1232 10 (1/2W)
R1231 10K (1/2W)
R1230 2.2 (1/2W)
R1233 4.7K (1/8W)
ZD1226 RB36EB3
ZD1227 RB36EB3
R1229 22K
R1234 15K
C1280 10/50
C1293 1000P /630
C1291 0.033 /630
R1291 3.9K (3W)
L1291
H.D.F.
C1226 100P/50
R1235 15K
R1293 1 (1W)
㉑㉒㉓㉔㉕㉖㉗㉘㉙㉚㉛㉜㉝㉞
DEFLECTION P.W.B. 1/2

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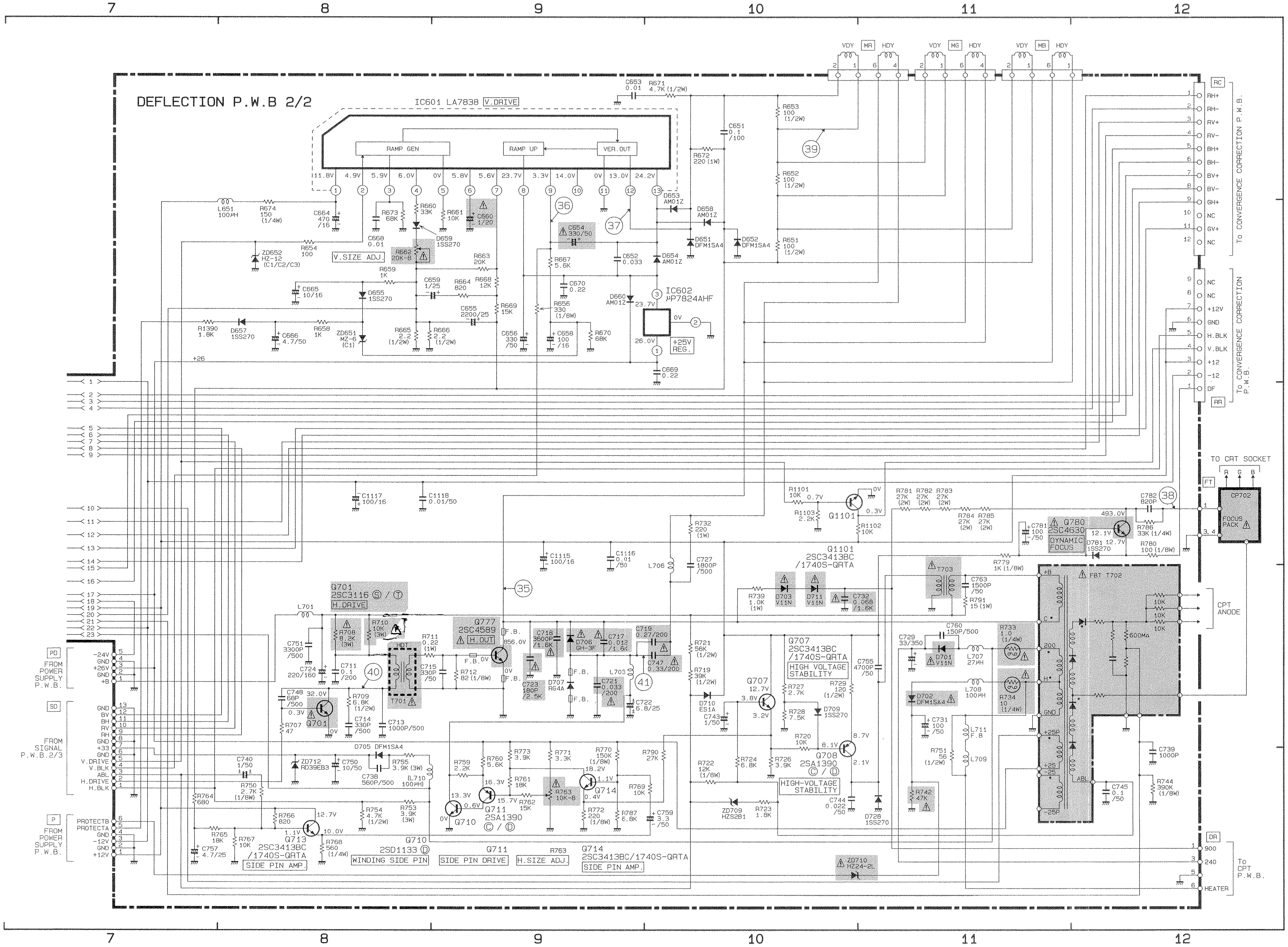
DEFLECTION P.W.B 2/2
IC601 LA7838 V.DRIVE
RAMP GEN
RAMP UP
VER.OUT
IC602 μP7824AHF
+25V REG.
V.SIZE ADJ
Q701 2SC3116 Ⓢ / Ⓣ H.DRIVE
Q777 2SC4589 H.OUT
HDT T701
Q707 2SC3413BC /1740S-QRTA HIGH VOLTAGE STABILITY
Q708 2SA1390 Ⓒ / Ⓓ HIGH-VOLTAGE STABILITY
Q710 2SD1133 Ⓓ WINDING SIDE PIN
Q711 2SA1390 Ⓒ / Ⓓ SIDE PIN DRIVE
R763 H.SIZE ADJ.
Q713 2SC3413BC /1740S-QRTA SIDE PIN AMP.
Q714 2SC3413BC/1740S-QRTA SIDE PIN AMP.
Q1101 2SC3413BC /1740S-QRTA
Q780 2SC4630 DYNAMIC FOCUS
FBT T702
T703
CP702 FOCUS PACK
TO CRT SOCKET
CPT ANODE
To CONVERGENCE CORRECTION P.W.B.
To CONVERGENCE CORRECTION P.W.B.
To CPT P.W.B.
FROM POWER SUPPLY P.W.B.
FROM SIGNAL P.W.B.2/3
FROM POWER SUPPLY P.W.B.
VDY MR HDY
VDY MG HDY
VDY MB HDY
RH+ RH- RV+ RV- BH+ BH- BV+ BV- GH+ NC GV+ NC
NC NC +12V GND H.BLK V.BLK +12 -12 DF
900 240 HEATER
-24V GND +26V GND +8
GND BV BH RV RH GND +33 GND V.DRIVE V.BLK ABL H.DRIVE H.BLK
PROTECTB PROTECTA GND -12V GND +12V
PD SD P RC RR FT DR
7 8 9 10 11 12
A B C D E
35 36 37 38 39 40 41

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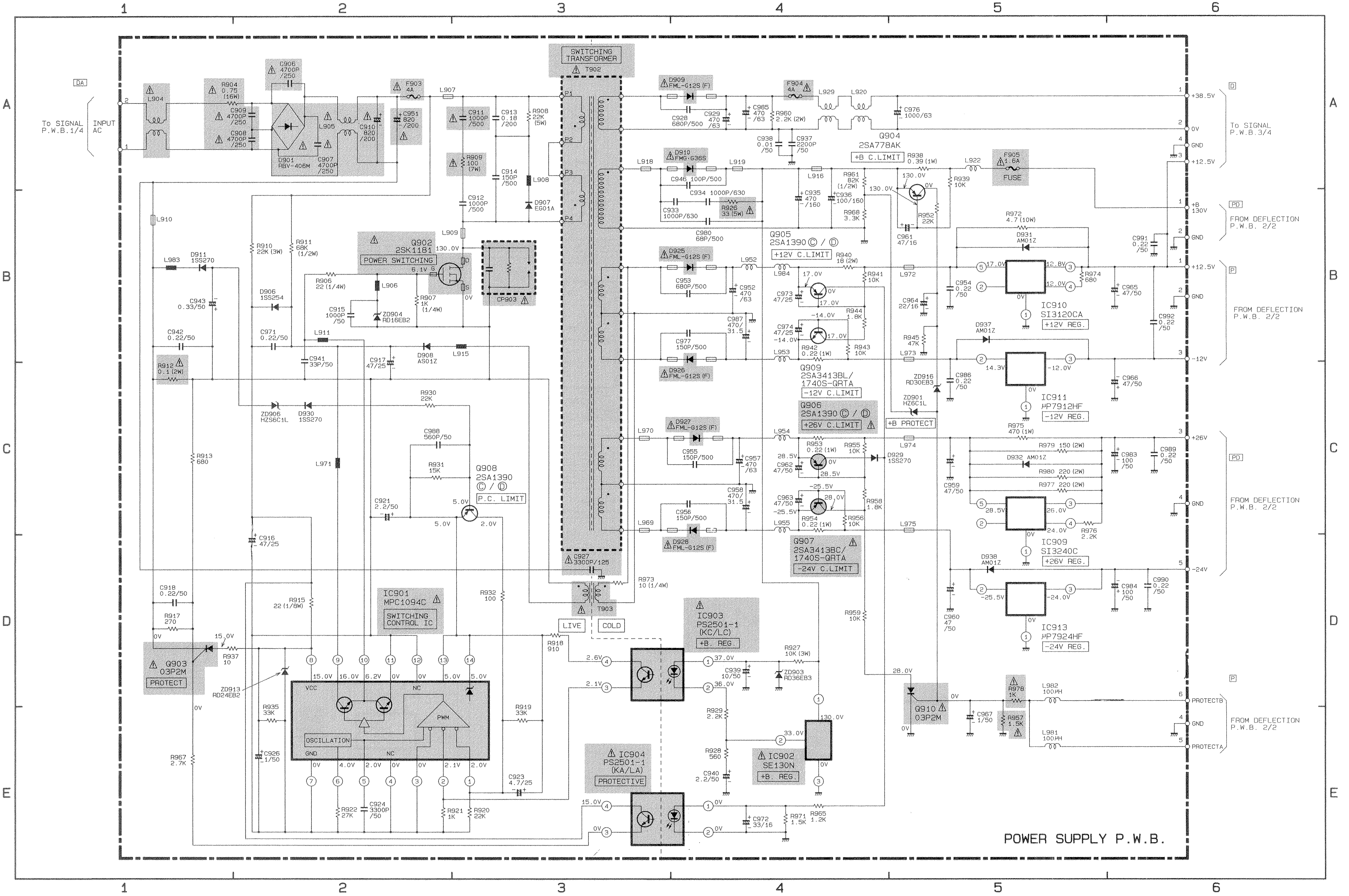
POWER SUPPLY P.W.B.
To SIGNAL P.W.B.1/4
INPUT AC
SWITCHING TRANSFORMER T902
Q902 2SK1181 POWER SWITCHING
IC901 MPC1094C SWITCHING CONTROL IC
OSCILLATION
PWM
Q903 03P2M PROTECT
Q908 2SA1390 Ⓒ / Ⓓ P.C. LIMIT
D901 RBV-406M
CP903
T903
LIVE
COLD
IC903 PS2501-1 (KC/LC) +B. REG.
IC904 PS2501-1 (KA/LA) PROTECTIVE
IC902 SE130N +B. REG.
Q904 2SA778AK +B C.LIMIT
Q905 2SA1390 Ⓒ / Ⓓ +12V C.LIMIT
Q909 2SA3413BL/1740S-QRTA -12V C.LIMIT
Q906 2SA1390 Ⓒ / Ⓓ +26V C.LIMIT
Q907 2SA3413BC/1740S-QRTA -24V C.LIMIT
+B PROTECT
F905 1.6A FUSE
IC910 SI3120CA +12V REG.
IC911 μP7912HF -12V REG.
IC909 SI3240C +26V REG.
IC913 μP7924HF -24V REG.
Q910 03P2M
To SIGNAL P.W.B.3/4
FROM DEFLECTION P.W.B. 2/2
+38.5V
0V
GND
+12.5V
+B 130V
-12V
+26V
-24V
PROTECTB
PROTECTA

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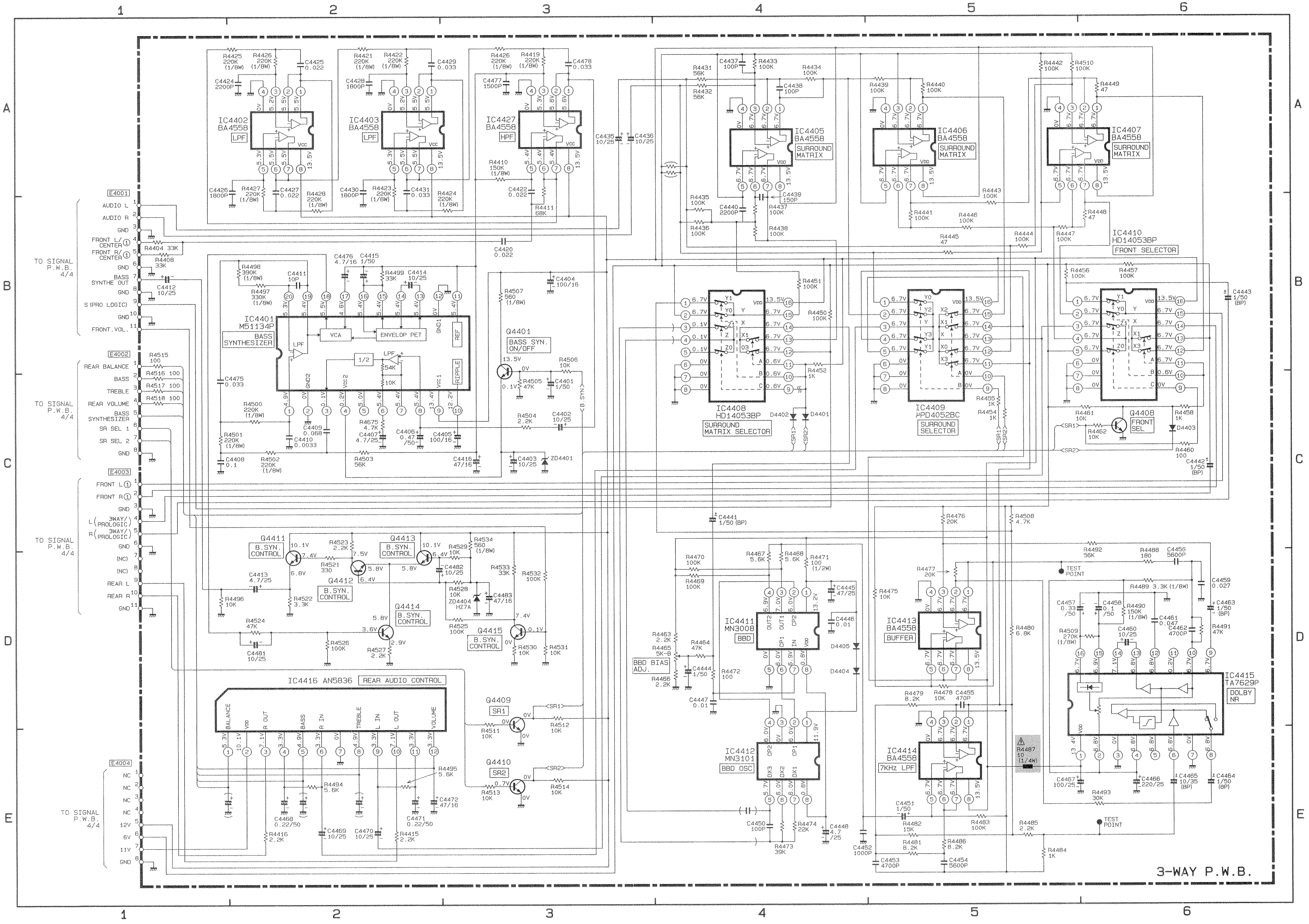

1
2
3
4
5
6
A
B
C
D
E
3-WAY P.W.B.
IC4402 BA4558 LPF
IC4403 BA4558 LPF
IC4427 BA4558 HPF
IC4405 BA4558 SURROUND MATRIX
IC4406 BA4558 SURROUND MATRIX
IC4407 BA4558 SURROUND MATRIX
IC4401 M51134P BASS SYNTHESIZER
VCA
ENVELOP DET
REF
RIPPLE
Q4401 BASS SYN. ON/OFF
IC4408 HD14053BP SURROUND MATRIX SELECTOR
IC4409 μPD4052BC SURROUND SELECTOR
IC4410 HD14053BP FRONT SELECTOR
Q4408 FRONT SEL
E4001
AUDIO L
AUDIO R
GND
FRONT L/CENTER ①
FRONT R/CENTER ①
BASS SYNTHE OUT
S(PRO LOGIC)
FRONT. VOL.
TO SIGNAL P.W.B. 4/4
E4002
REAR BALANCE
BASS
TREBLE
REAR VOLUME
BASS SYNTHESIZER
SR SEL 1
SR SEL 2
E4003
FRONT L①
FRONT R①
L(3WAY/PROLOGIC)
R(3WAY/PROLOGIC)
(NC)
REAR L
REAR R
E4004
NC
12V
6V
11V
Q4411 B.SYN. CONTROL
Q4412 B.SYN. CONTROL
Q4413 B.SYN. CONTROL
Q4414 B.SYN. CONTROL
Q4415 B.SYN. CONTROL
IC4416 AN5836 REAR AUDIO CONTROL
BALANCE
VDD
R OUT
BASS
R IN
TREBLE
L IN
L OUT
VOLUME
Q4409 SR1
Q4410 SR2
IC4411 MN3008 BBD
IC4412 MN3101 BBD OSC
BBD BIAS ADJ.
IC4413 BA4558 BUFFER
IC4414 BA4558 7KHz LPF
IC4415 TA7629P DOLBY NR
TEST POINT
R4487 10 (1/4W)

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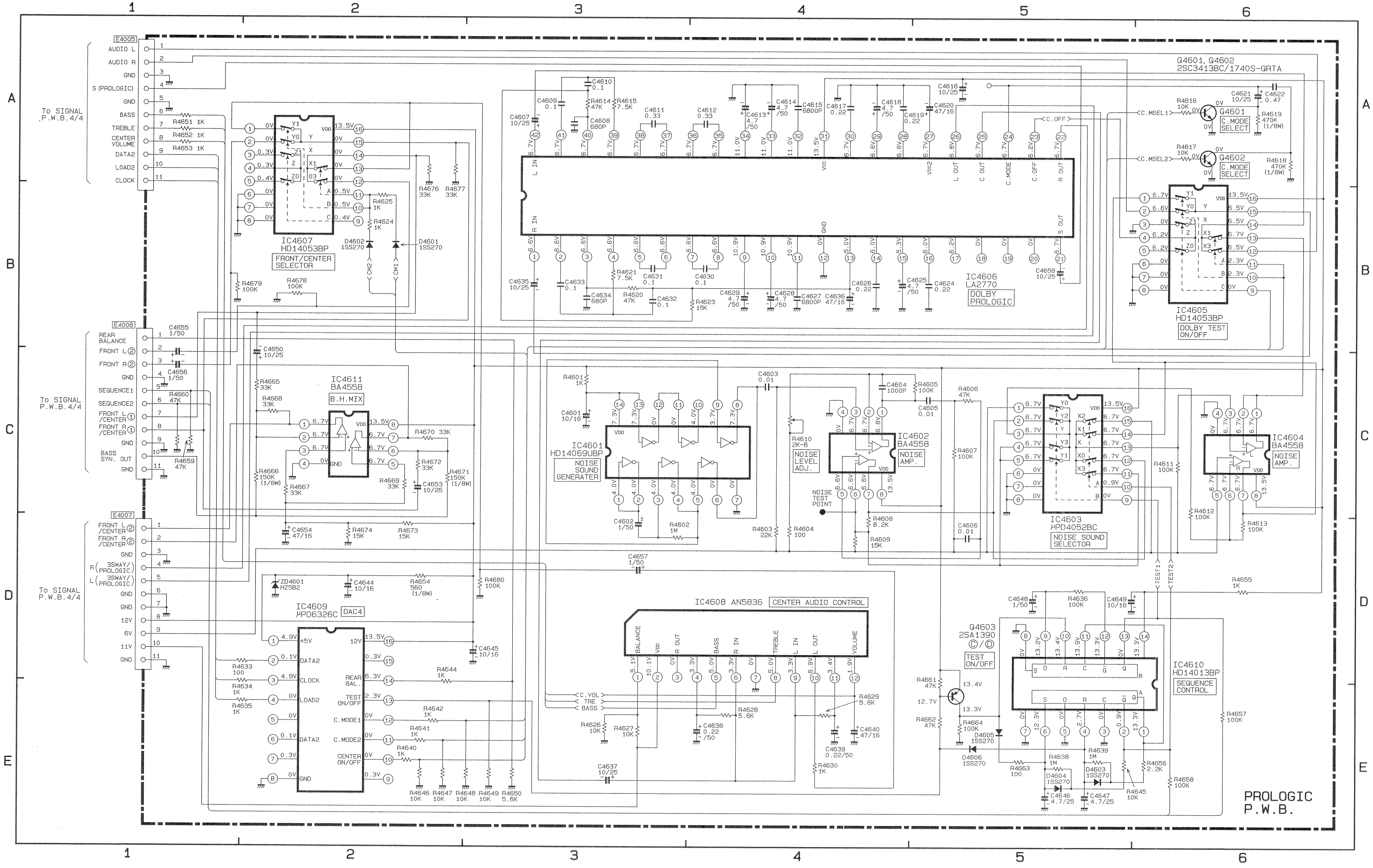

E4005
AUDIO L
AUDIO R
GND
S (PROLOGIC)
BASS
TREBLE
CENTER VOLUME
DATA2
LOAD2
CLOCK
To SIGNAL P.W.B.4/4
E4006
REAR BALANCE
FRONT L②
FRONT R②
SEQUENCE1
SEQUENCE2
FRONT L /CENTER①
FRONT R /CENTER①
BASS SYN. OUT
E4007
FRONT L /CENTER②
FRONT R /CENTER②
R (3SWAY/ PROLOGIC)
L (3SWAY/ PROLOGIC)
12V
6V
11V
IC4607 HD14053BP
FRONT/CENTER SELECTOR
D4601 1SS270
D4602 1SS270
CM1
CM2
IC4606 LA2770
DOLBY PROLOGIC
L IN
R IN
VCC
VCC2
GND
L OUT
C OUT
C.MODE
C.OFF
R OUT
S OUT
Q4601, Q4602 2SC3413BC/1740S-QRTA
C.MSEL1
C.MSEL2
Q4601 C.MODE SELECT
Q4602 C.MODE SELECT
IC4605 HD14053BP
DOLBY TEST ON/OFF
IC4611 BA4558
B.H.MIX
IC4601 HD14069UBP
NOISE SOUND GENERATER
R4610 2K-B
NOISE LEVEL ADJ.
IC4602 BA4558
NOISE AMP.
NOISE TEST POINT
IC4603 μPD4052BC
NOISE SOUND SELECTOR
IC4604 BA4558
NOISE AMP.
TEST1
TEST2
IC4609 μPD6326C
DAC4
ZD4601 HZ5B2
DATA2
CLOCK
LOAD2
REAR BAL.
TEST ON/OFF
C.MODE1
C.MODE2
CENTER ON/OFF
IC4608 AN5836
CENTER AUDIO CONTROL
BALANCE
VDD
R OUT
BASS
R IN
TREBLE
L IN
L OUT
VOLUME
C.VOL
TRE
BASS
Q4603 2SA1390 Ⓒ/Ⓓ
TEST ON/OFF
IC4610 HD14013BP
SEQUENCE CONTROL
PROLOGIC P.W.B.
1
2
3
4
5
6
A
B
C
D
E

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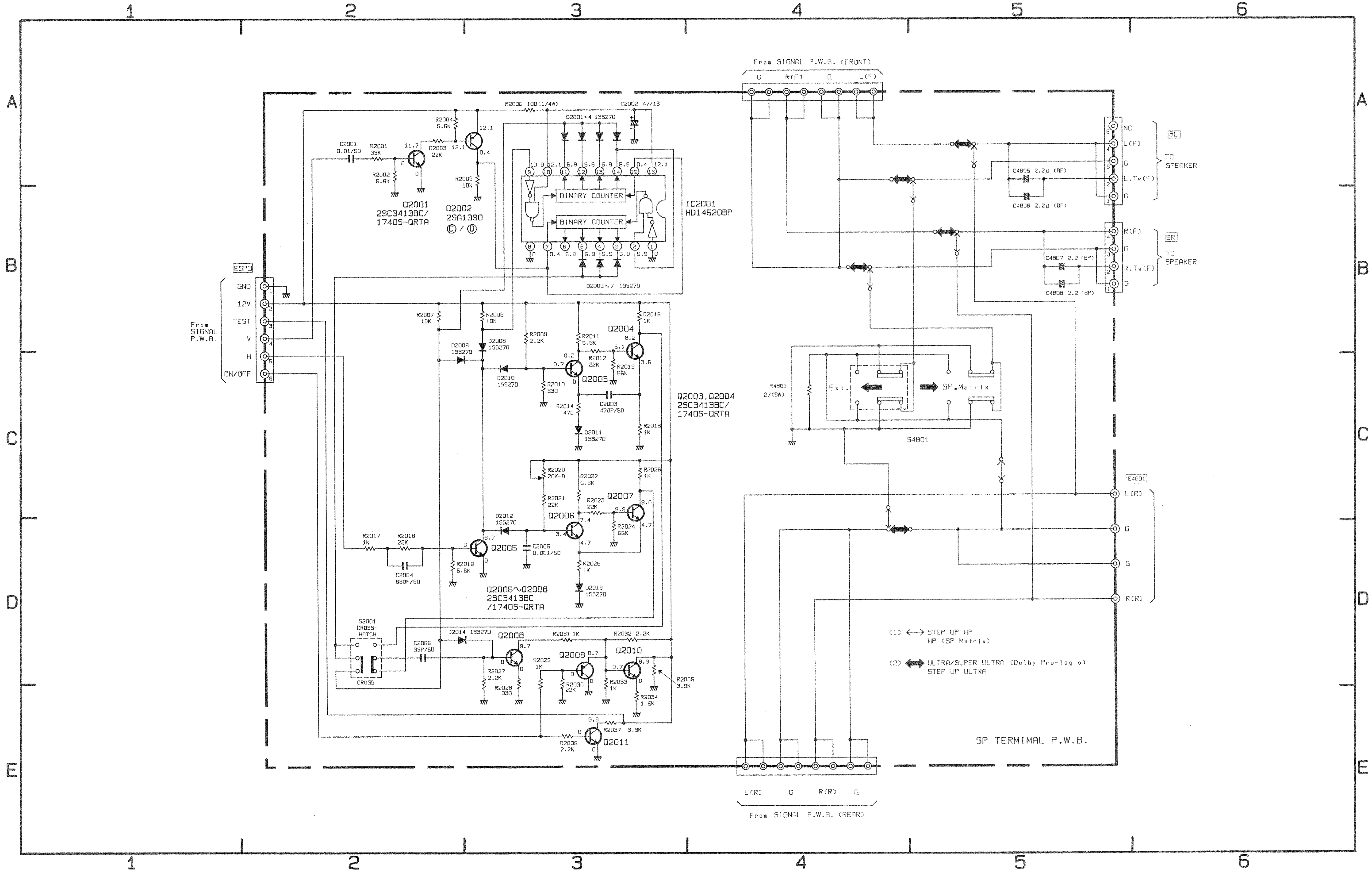
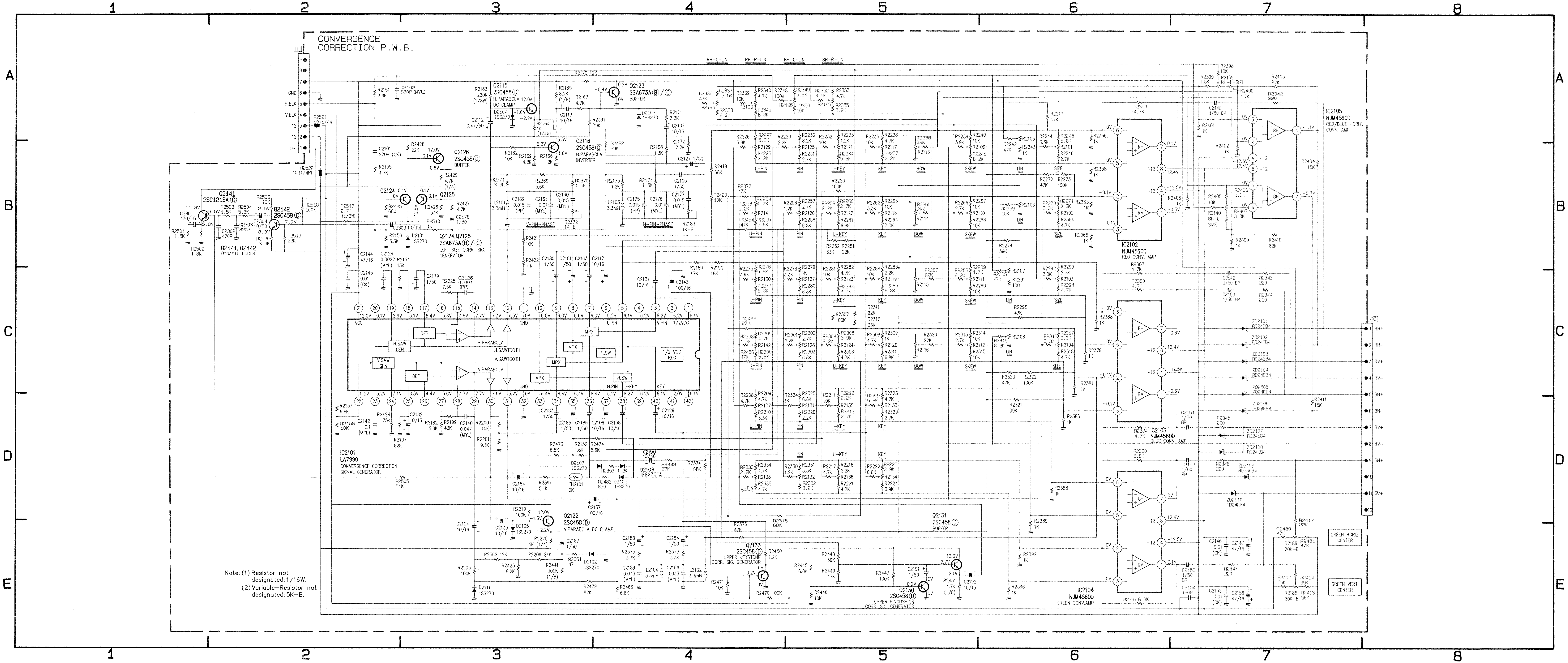


From SIGNAL P.W.B. (FRONT)
G R(F) G L(F)
ESP3
From SIGNAL P.W.B.
GND 12V TEST V H ON/OFF
C2001 0.01/50
R2001 33K
R2002 5.6K
R2003 22K
R2004 5.6K
R2005 10K
R2006 100(1/4W)
C2002 47/16
D2001~4 1SS270
Q2001 2SC3413BC/ 1740S-QRTA
Q2002 2SA1390 Ⓒ/Ⓓ
BINARY COUNTER
BINARY COUNTER
IC2001 HD14520BP
D2005~7 1SS270
R2007 10K
R2008 10K
D2008 1SS270
D2009 1SS270
R2009 2.2K
D2010 1SS270
R2010 330
R2011 5.6K
R2012 22K
R2013 56K
R2014 470
R2015 1K
R2016 1K
Q2003
Q2004
C2003 470P/50
D2011 1SS270
Q2003,Q2004 2SC3413BC/ 1740S-QRTA
R2017 1K
R2018 22K
C2004 680P/50
R2019 5.6K
Q2005
D2012 1SS270
C2005 0.001/50
Q2006
R2020 20K-B
R2021 22K
R2022 5.6K
R2023 22K
R2024 56K
R2025 1K
R2026 1K
Q2007
D2013 1SS270
Q2005~Q2008 2SC3413BC /1740S-QRTA
S2001 CROSS-HATCH
CROSS
C2006 33P/50
D2014 1SS270
Q2008
R2027 2.2K
R2028 330
R2029 1K
Q2009
R2030 22K
R2031 1K
R2032 2.2K
Q2010
R2033 1K
R2034 1.5K
R2035 3.9K
R2036 2.2K
R2037 3.9K
Q2011
NC L(F) G L.Tw(F) G
SL
TO SPEAKER
C4805 2.2μ (BP)
C4806 2.2μ (BP)
R(F) G R.Tw(F) G
SR
TO SPEAKER
C4807 2.2 (BP)
C4808 2.2 (BP)
R4801 27(3W)
Ext.
SP Matrix
S4801
E4801
L(R) G G R(R)
(1) ↔ STEP UP HP
HP (SP Matrix)
(2) ⬌ ULTRA/SUPER ULTRA (Dolby Pro-logic)
STEP UP ULTRA
SP TERMIMAL P.W.B.
L(R) G R(R) G
From SIGNAL P.W.B. (REAR)

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver though improper servicing.

BASIC CIRCUIT DIAGRAM


CONVERGENCE CORRECTION P.W.B.
IC2101 LA7990 CONVERGENCE CORRECTION SIGNAL GENERATOR
IC2102 NJM4560D RED CONV. AMP
IC2103 NJM4560D BLUE CONV. AMP
IC2104 NJM4560D GREEN CONV. AMP
IC2105 NJM4560D RED/BLUE HORIZ CONV. AMP
Q2115 2SC458(D) H.PARABOLA DC CLAMP
Q2123 2SA673A(B)/(C) BUFFER
Q2116 2SC458(D) H.PARABOLA INVERTER
Q2126 2SC458(D) BUFFER
Q2124, Q2125 2SA673A(B)/(C) LEFT SIZE CORR. SIG. GENERATOR
Q2141 2SC1213A(C)
Q2142 2SC458(D)
Q2141, Q2142 DYNAMIC FOCUS
Q2122 2SC458(D) V.PARABOLA DC CLAMP
Q2133 2SC458(D) UPPER KEYSTONE CORR. SIG. GENERATOR
Q2130 2SC458(D) UPPER PINCUSHION CORR. SIG. GENERATOR
Q2131 2SC458(D) BUFFER
H.SAW GEN
V.SAW GEN
DET
MPX
H.SW
1/2 VCC REG
H.PARABOLA
V.PARABOLA
H.SAWTOOTH
V.SAWTOOTH
GND
H.BLK
V.BLK
+12
−12
DF
RH-L-LIN
RH-R-LIN
BH-L-LIN
BH-R-LIN
L-PIN
PIN
L-KEY
KEY
BOW
SKEW
LIN
SIZE
U-PIN
U-KEY
V-PIN-PHASE
H-PIN-PHASE
RH+
RH−
RV+
RV−
BH+
BH−
BV+
BV−
GH+
GV+
GREEN HORIZ. CENTER
GREEN VERT. CENTER
Note: (1) Resistor not designated: 1/16W.
(2) Variable-Resistor not designated: 5K-B.

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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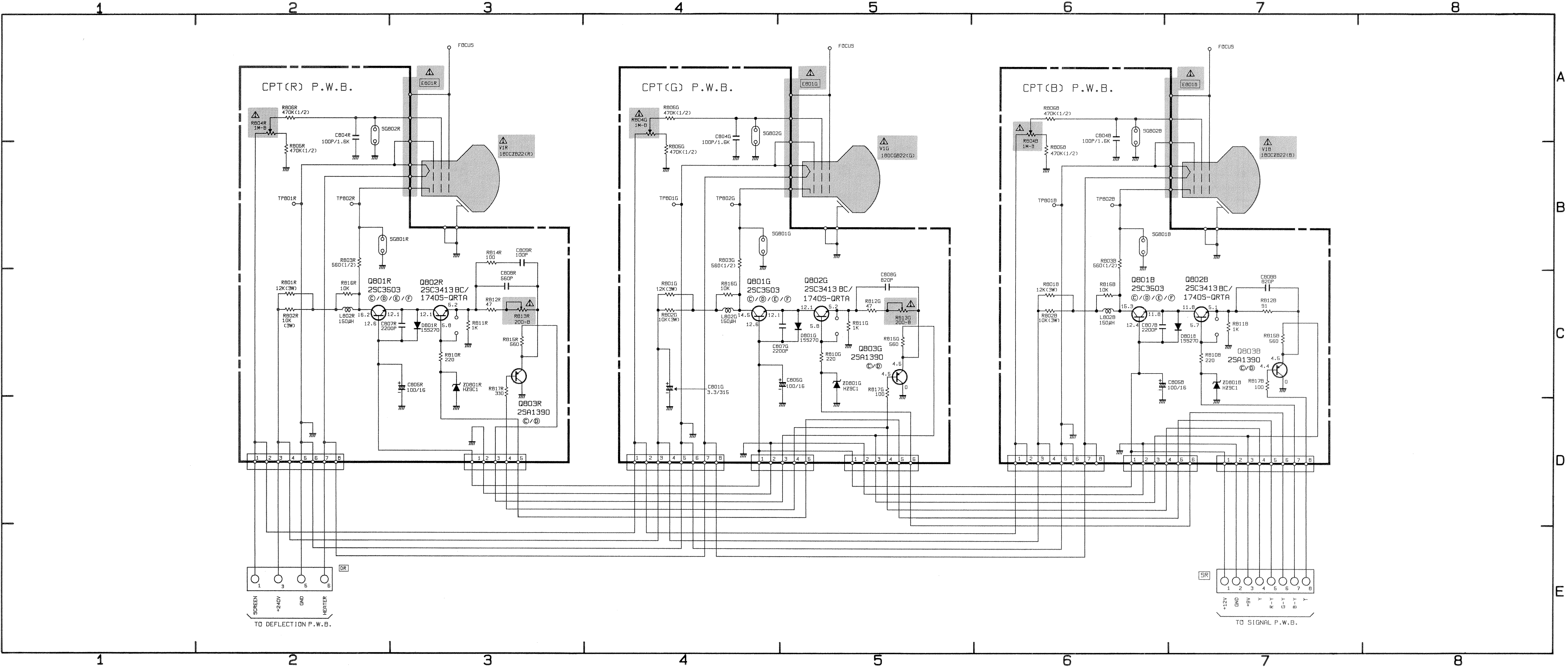
CPT(R) P.W.B.
CPT(G) P.W.B.
CPT(B) P.W.B.
FOCUS
E801R
E801G
E801B
R804R 1M-B
R804G 1M-B
R804B 1M-B
R806R 470K(1/2)
R806G 470K(1/2)
R806B 470K(1/2)
R805R 470K(1/2)
R805G 470K(1/2)
R805B 470K(1/2)
C804R 100P/1.6K
C804G 100P/1.6K
C804B 100P/1.6K
SG802R
SG802G
SG802B
V1R 180CZB22(R)
V1G 180CGB22(G)
V1B 180CZB22(B)
TP801R
TP802R
TP801G
TP802G
TP801B
TP802B
SG801R
SG801G
SG801B
R803R 560(1/2)
R803G 560(1/2)
R803B 560(1/2)
R801R 12K(3W)
R802R 10K (3W)
R801G 12K(3W)
R802G 10K(3W)
R801B 12K(3W)
R802B 10K(3W)
R816R 10K
R816G 10K
R816B 10K
L802R 150μH
L802G 150μH
L802B 150μH
Q801R 2SC3503 Ⓒ/Ⓓ/Ⓔ/Ⓕ
Q801G 2SC3503 Ⓒ/Ⓓ/Ⓔ/Ⓕ
Q801B 2SC3503 Ⓒ/Ⓓ/Ⓔ/Ⓕ
Q802R 2SC3413 BC/ 1740S-QRTA
Q802G 2SC3413 BC/ 1740S-QRTA
Q802B 2SC3413 BC/ 1740S-QRTA
Q803R 2SA1390 Ⓒ/Ⓓ
Q803G 2SA1390 Ⓒ/Ⓓ
Q803B 2SA1390 Ⓒ/Ⓓ
C807R 2200P
C807G 2200P
C807B 2200P
D801R 1SS270
D801G 1SS270
D801B 1SS270
R814R 100
C809R 100P
C808R 560P
C808G 820P
C808B 820P
R812R 47
R812G 47
R812B 91
R813R 200-B
R813G 200-B
R811R 1K
R811G 1K
R811B 1K
R815R 560
R815G 560
R815B 560
R810R 220
R810G 220
R810B 220
C805R 100/16
C805G 100/16
C805B 100/16
ZD801R HZ9C1
ZD801G HZ9C1
ZD801B HZ9C1
R817R 330
R817G 100
R817B 100
C801G 3.3/315
16.2
12.1
12.6
5.2
5.8
14.5
15.3
11.8
12.4
5.1
5.7
4.5
4.4
0
1 2 3 4 5 6 7 8
1 2 3 4 5
1 2 3 4 5 6
DR
1 3 5 6
SCREEN
+240V
GND
HEATER
TO DEFLECTION P.W.B.
SR
1 2 3 4 5 6 7 8
+12V
GND
+9V
Y
R-Y
G-Y
B-Y
Y
TO SIGNAL P.W.B.
A
B
C
D
E
1
2
3
4
5
6
7
8

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

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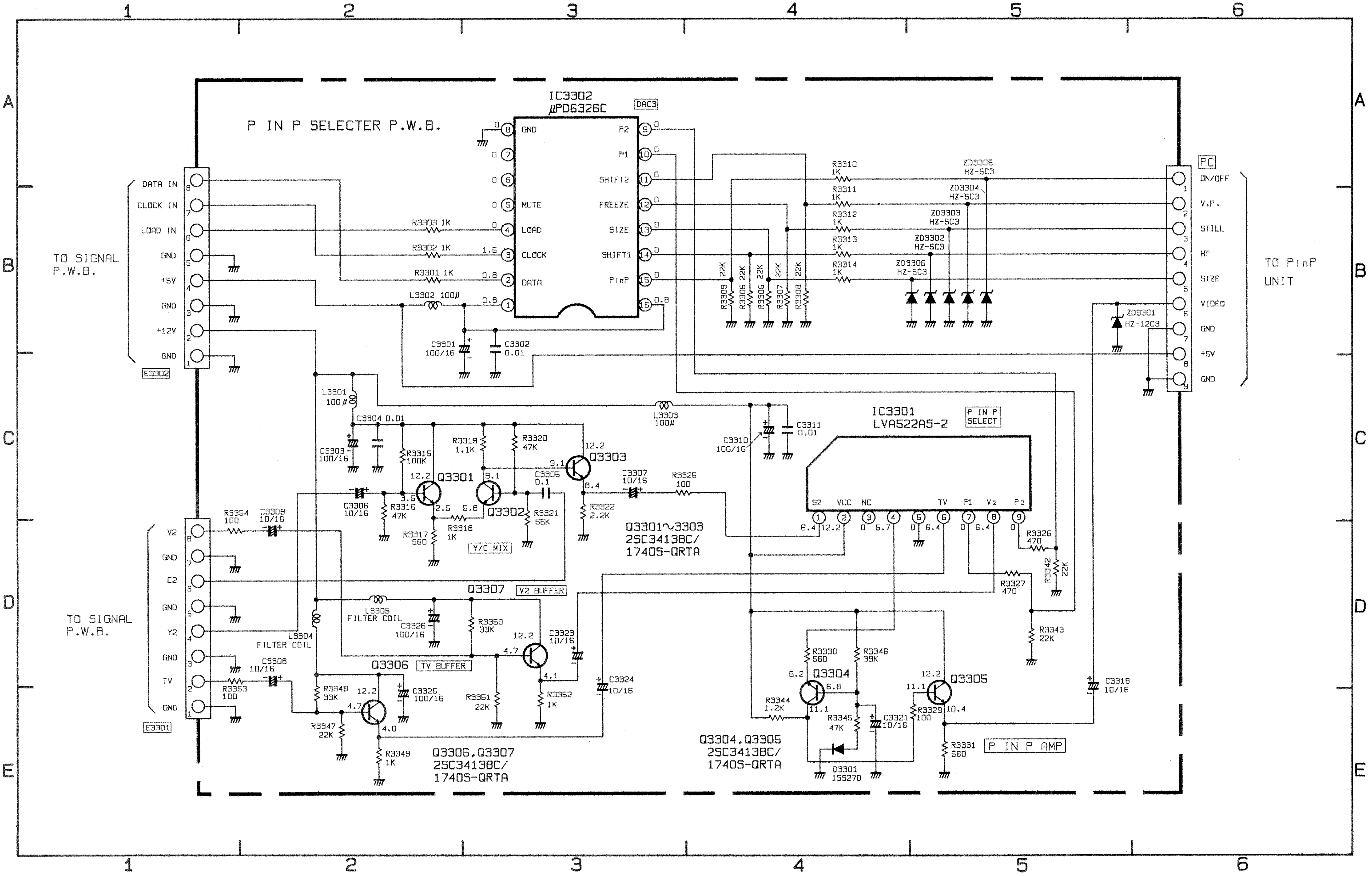
BASIC CIRCUIT DIAGRAM


P IN P SELECTER P.W.B.
IC3302 μPD6326C
DAC3
GND
MUTE
LOAD
CLOCK
DATA
P2
P1
SHIFT2
FREEZE
SIZE
SHIFT1
PinP
TO SIGNAL P.W.B.
DATA IN
CLOCK IN
LOAD IN
GND
+5V
GND
+12V
GND
E3302
R3303 1K
R3302 1K
R3301 1K
L3302 100μ
C3301 100/16
C3302 0.01
R3310 1K
R3311 1K
R3312 1K
R3313 1K
R3314 1K
ZD3305 HZ-5C3
ZD3304 HZ-5C3
ZD3303 HZ-5C3
ZD3302 HZ-5C3
ZD3306 HZ-5C3
R3309 22K
R3305 22K
R3306 22K
R3307 22K
R3308 22K
PC
ON/OFF
V.P.
STILL
HP
SIZE
VIDEO
GND
+5V
GND
ZD3301 HZ-12C3
TO PinP UNIT
L3301 100μ
C3304 0.01
C3303 100/16
R3315 100K
R3319 1.1K
R3320 47K
Q3301
Q3302
Q3303
C3305 0.1
R3321 56K
R3322 2.2K
C3306 10/16
R3316 47K
R3317 560
R3318 1K
Y/C MIX
L3303 100μ
C3310 100/16
C3311 0.01
C3307 10/16
R3325 100
Q3301~3303 2SC3413BC/ 1740S-QRTA
IC3301 LVA522AS-2
P IN P SELECT
S2 VCC NC TV P1 V2 P2
R3326 470
R3342 22K
R3327 470
R3343 22K
TO SIGNAL P.W.B.
V2
GND
C2
GND
Y2
GND
TV
GND
E3301
R3354 100
C3309 10/16
R3353 100
C3308 10/16
L3304 FILTER COIL
L3305 FILTER COIL
C3326 100/16
Q3307
V2 BUFFER
R3350 33K
C3323 10/16
C3324 10/16
Q3306
TV BUFFER
R3348 33K
R3347 22K
R3349 1K
C3325 100/16
R3351 22K
R3352 1K
Q3306,Q3307 2SC3413BC/ 1740S-QRTA
R3330 560
R3346 39K
Q3304
Q3305
R3344 1.2K
R3345 47K
C3321 10/16
R3329 100
R3331 560
D3301 1SS270
Q3304,Q3305 2SC3413BC/ 1740S-QRTA
P IN P AMP
C3318 10/16

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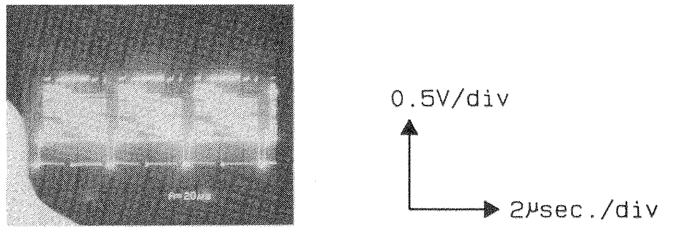
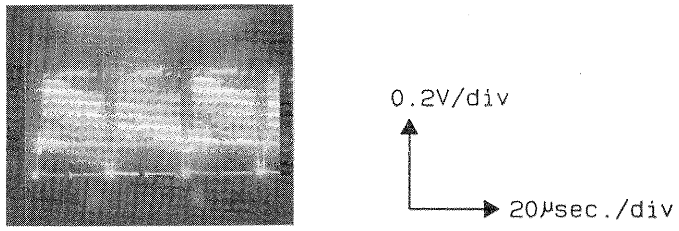
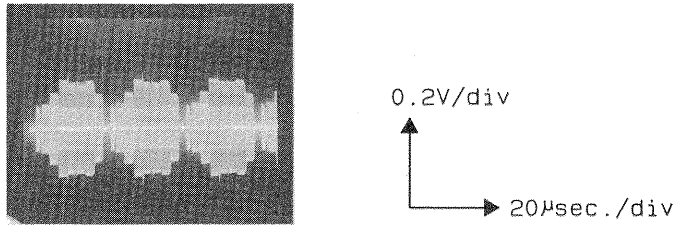
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

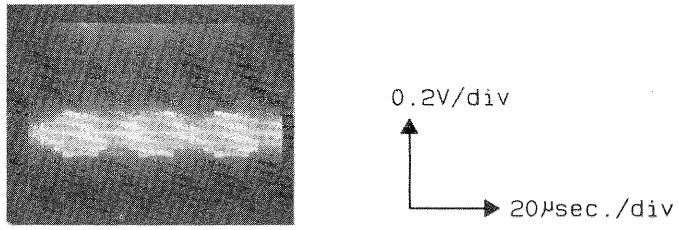
WAVEFORMS AT EACH SECTION

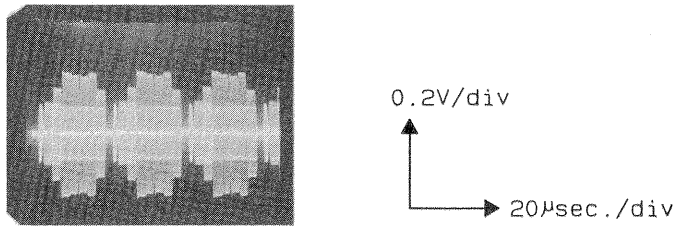
SIGNAL P.W.B. (2/4)

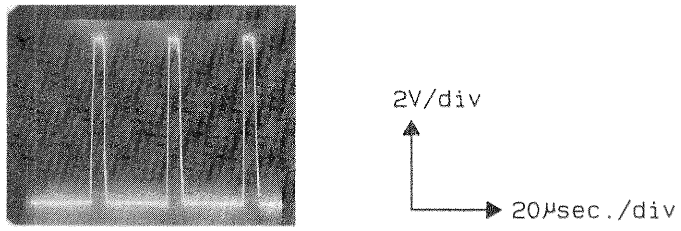

① M301 ④ pin

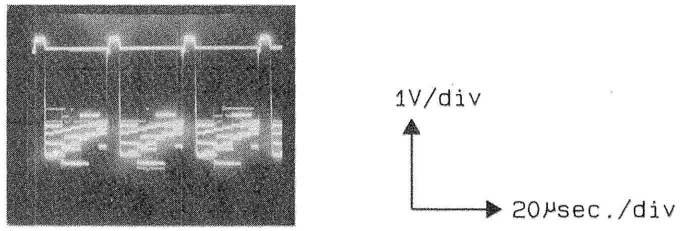

② M301 ⑥ pin

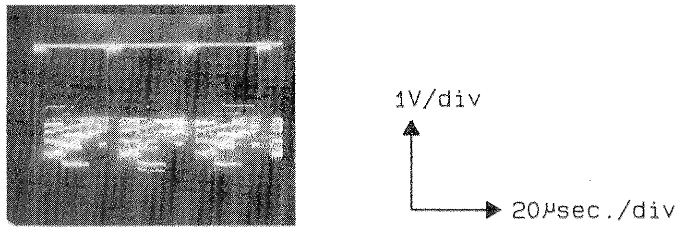

③ M301 ⑧ pin

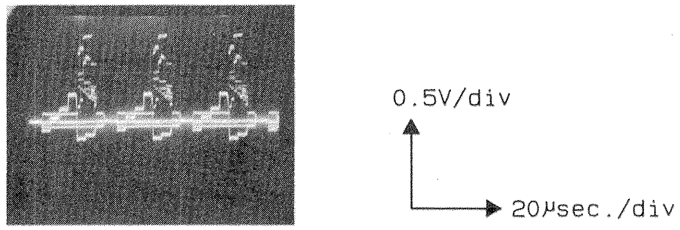

④ M301 ⑩ pin

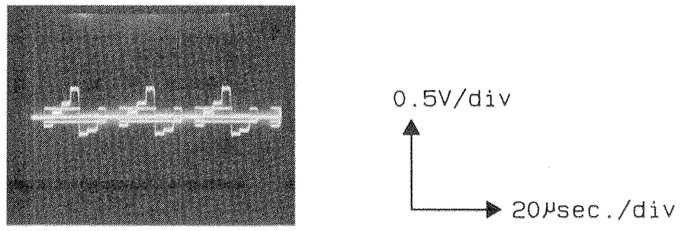

⑤ M301 ⑭ pin

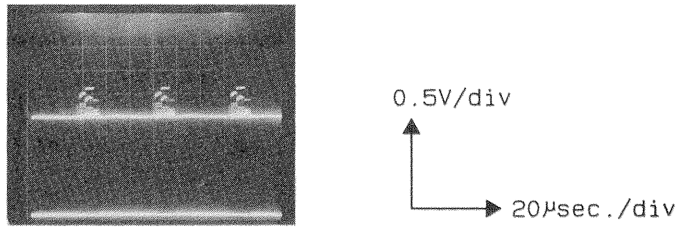

⑥ M301 ⑯ pin

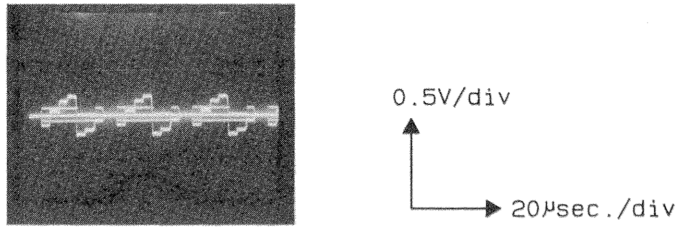

⑦ IC503 ⑩ pin

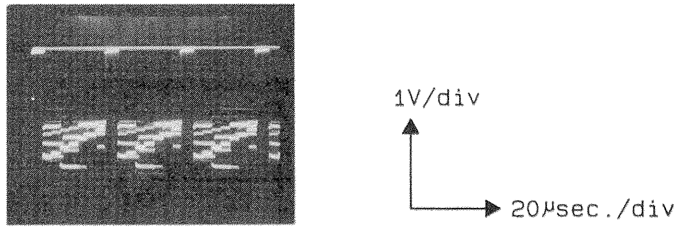

⑧ IC503 ⑪ pin

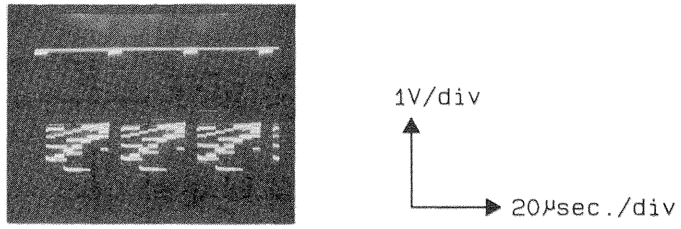

⑨ IC503 ⑰ pin

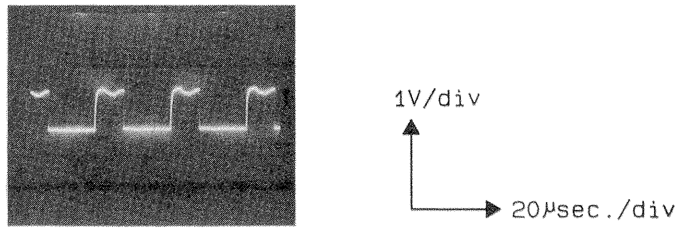

⑩ IC503 ⑱ pin

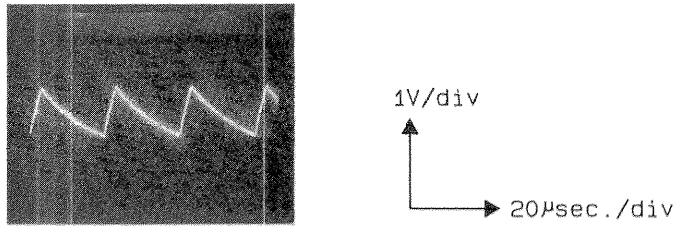

⑪ IC503 ⑲ pin

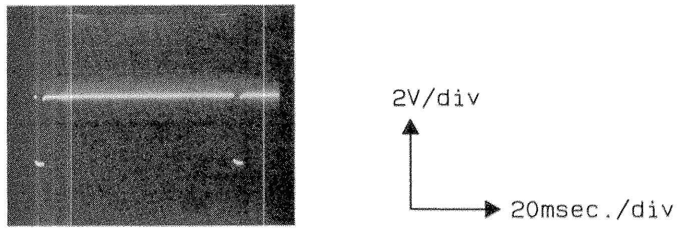

⑫ IC502 ⑲ pin

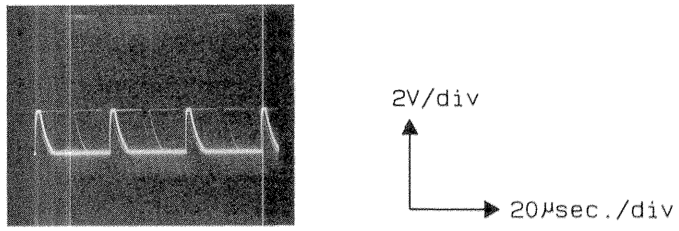

⑬ IC502 ㉔ pin

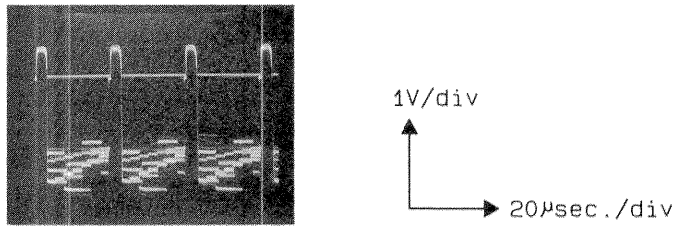

⑭ IC501 ⑨ pin

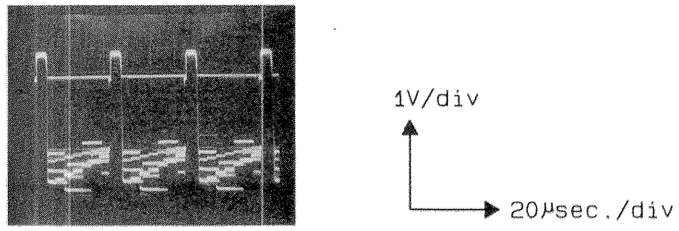

⑮ IC501 ㉓ pin


⑯ IC501 ㉗ pin


⑰ IC501 ㉚ pin

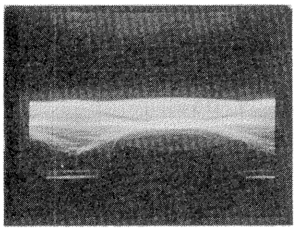

⑱ IC501 ㉝ pin


⑲ Q311 emitter


⑳ Q313 emitter

DEFLECTION P.W.B. (1/2)

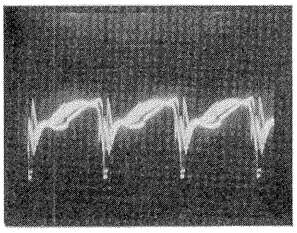
㉑ CR connector ③ pin



10V/div

2μsec./div

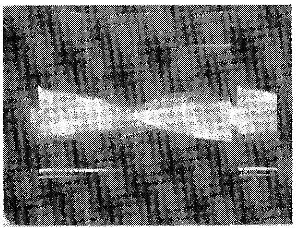
㉒ CR connector ③ pin



10V/div

20μsec./div

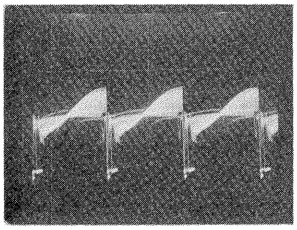
㉓ CR connector ② pin



10V/div

2msec./div

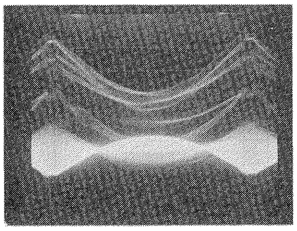
㉔ CR connector ② pin



10V/div

20μsec./div

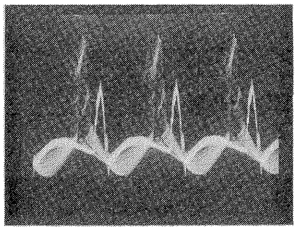
㉕ CG connector ④ pin



5V/div

2msec./div

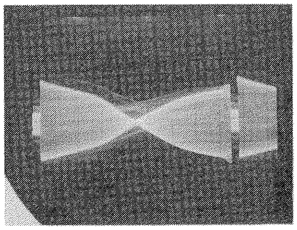
㉖ CG connector ④ pin



5V/div

20μsec./div

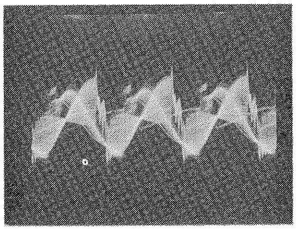
㉗ CG connector ② pin



5V/div

2msec./div

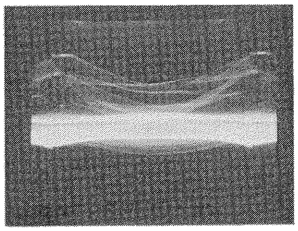
㉘ CG connector ② pin



5V/div

20μsec./div

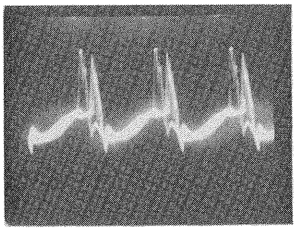
㉙ CB connector ④ pin



10V/div

2μsec./div

㉚ CB connector ④ pin

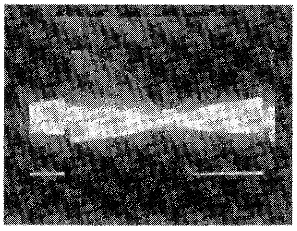


10V/div

20μsec./div

DEFLECTION P.W.B. (1/2)

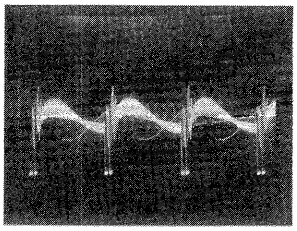
㉛ CB connector ② pin



10V/div

2μsec./div

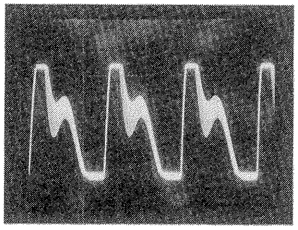
㉜ CB connector ② pin



10V/div

20μsec./div

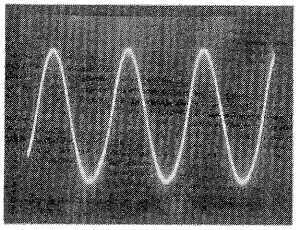
㉝ HG connector ⑤ pin



10V/div

20μsec./div

㉞ HG connector ② pin

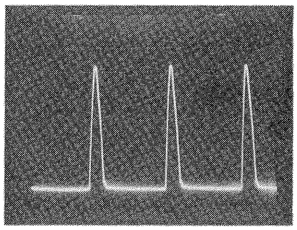


20V/div

20μsec./div

DEFLECTION P.W.B. (2/2)

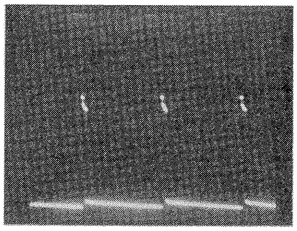
㉟ Q777 corrector



200V/div

20μsec./div

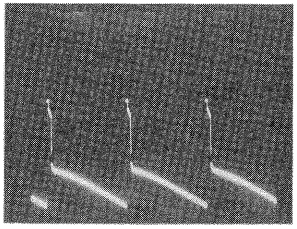
㊱ IC601 ⑨ pin



5V/div

5msec./div

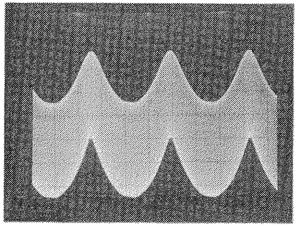
㊲ IC601 ⑫ pin



10V/div

5msec./div

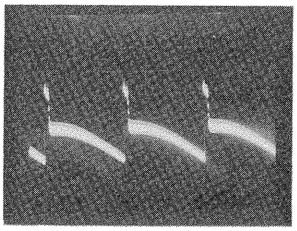
㊳ FT connector ① pin



100V/div

5msec./div

㊴ MR connector ① pin

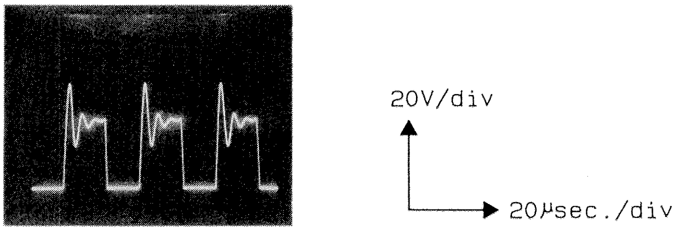


5V/div

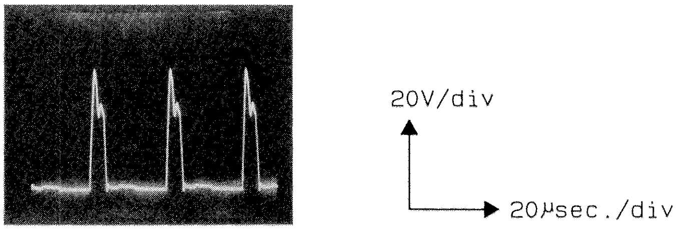
5msec./div

DEFLECTION P.W.B. (2/2)

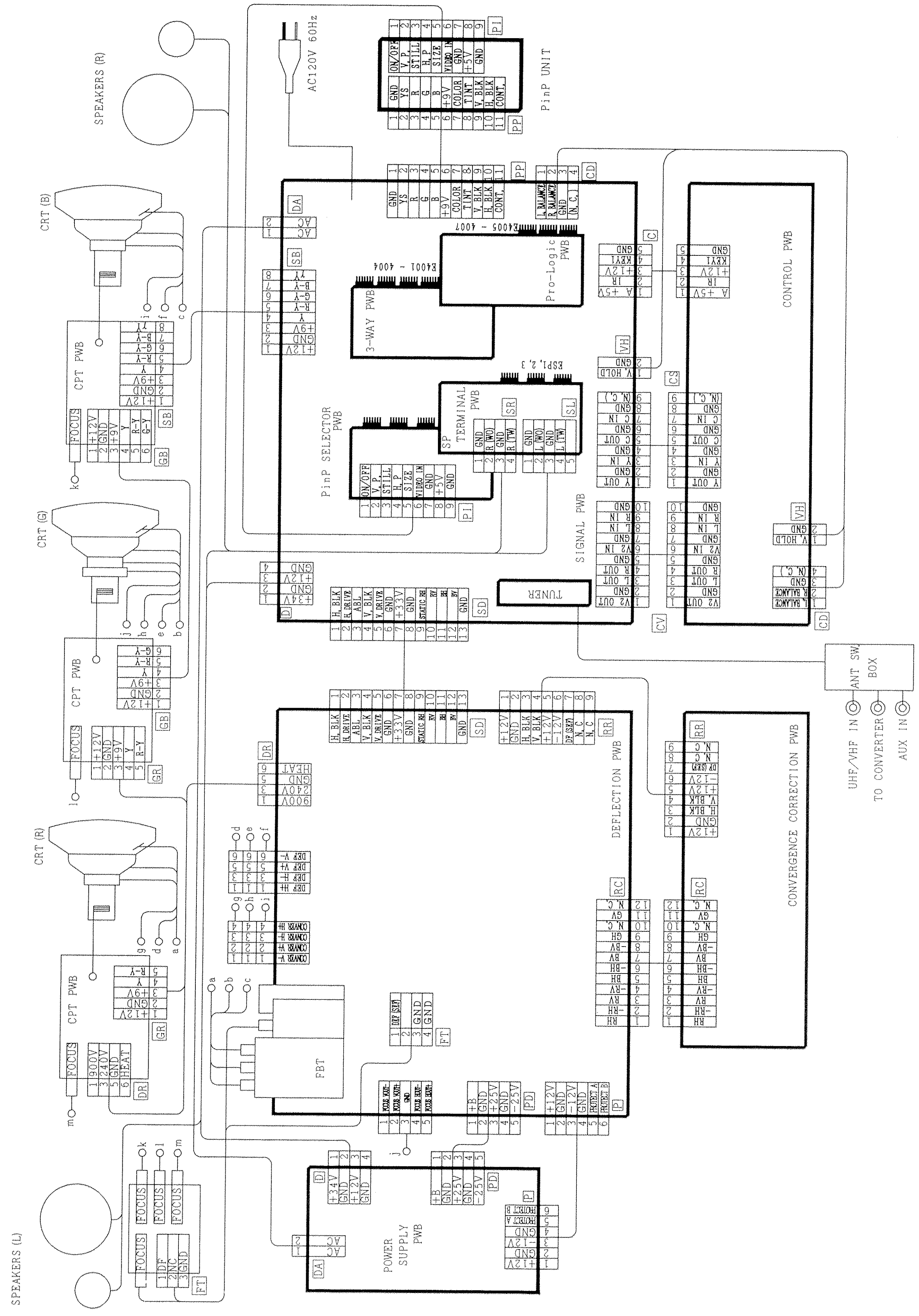
㊵ Q701 corrector



㊶ Q706 anode

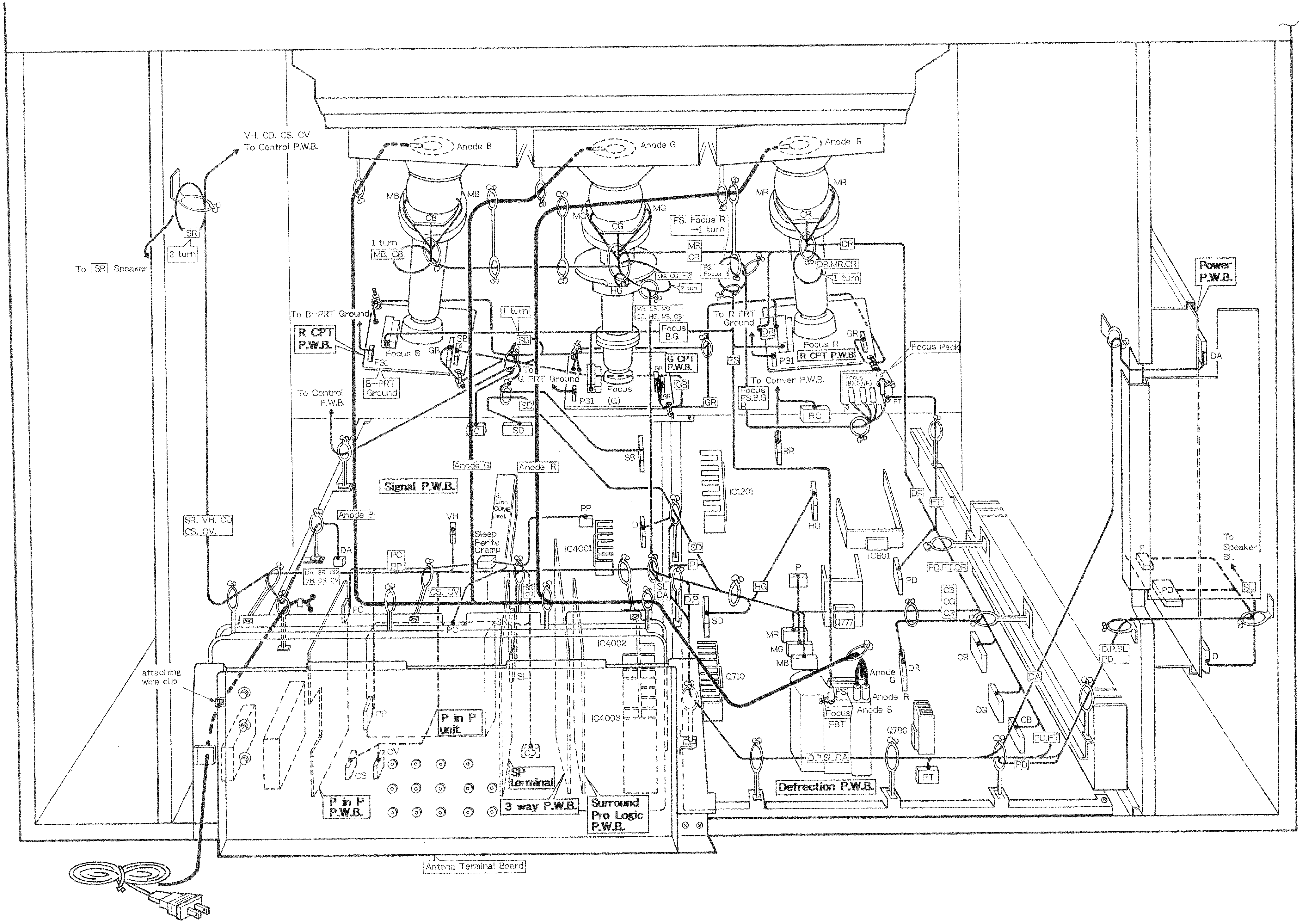


WIRING DIAGRAM

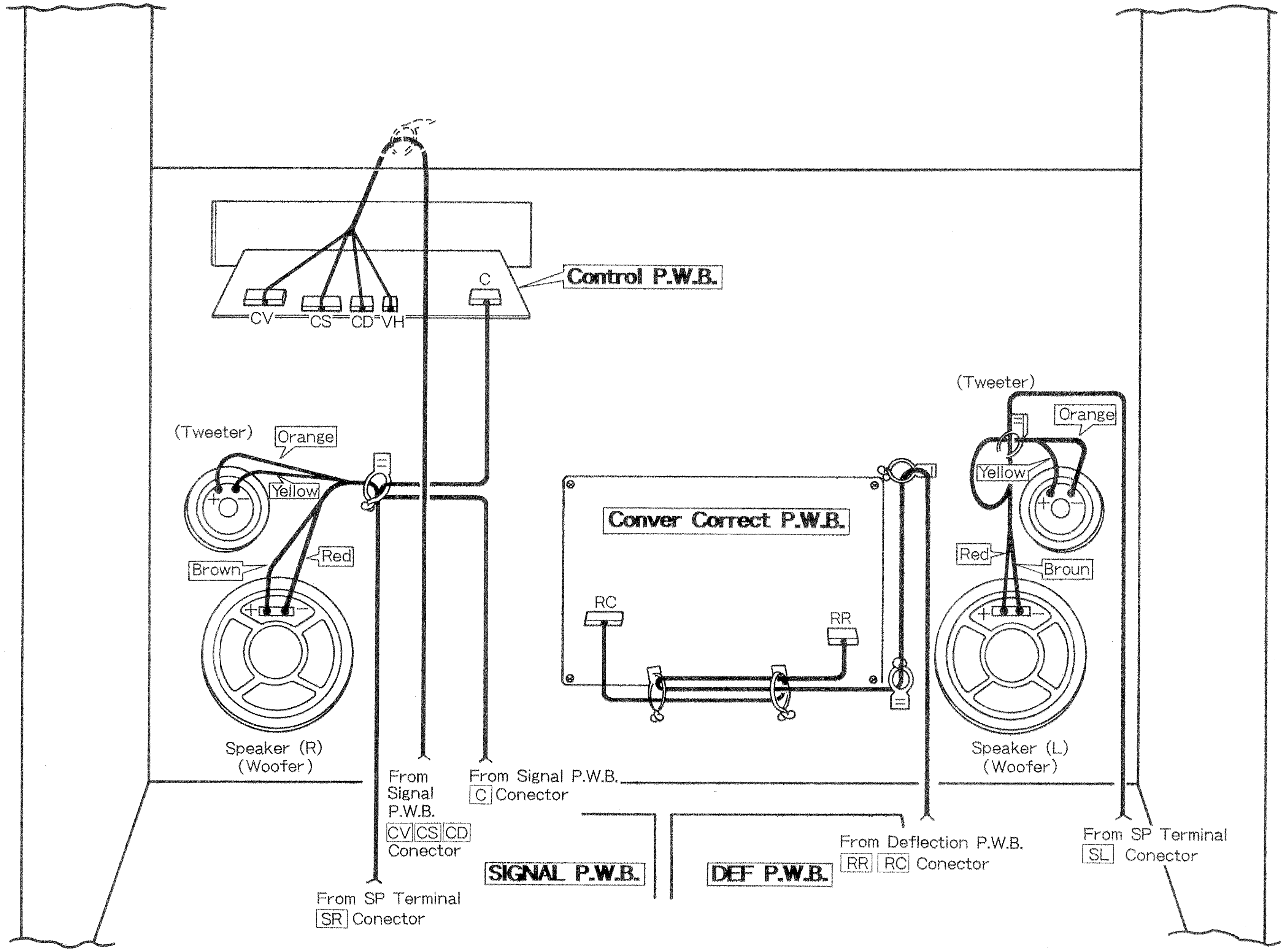


SPEAKERS (R)
AC120V 60Hz
PinP UNIT
CRT (B)
CPT PWB
CRT (G)
CPT PWB
CRT (R)
CPT PWB
SPEAKERS (L)
PinP SELECTOR PWB
3-WAY PWB
Pro-Logic PWB
SP TERMINAL PWB
SIGNAL PWB
TUNER
CONTROL PWB
ANT SW. BOX
UHF/VHF IN
TO CONVERTER
AUX IN
DEFLECTION PWB
CONVERGENCE CORRECTION PWB
FBT
POWER SUPPLY PWB

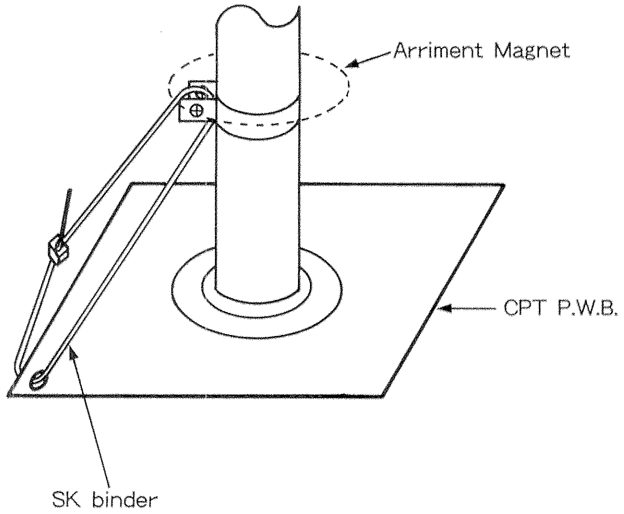
WIRING DIAGRAM


VH. CD. CS. CV
To Control P.W.B.
Anode B
Anode G
Anode R
MB
MB
MG
MG
MR
MR
CB
CG
CR
SR
2 turn
To SR Speaker
1 turn
MB. CB
FS. Focus R
→1 turn
MR
CR
FS.
Focus R
MG. CG. HG
2 turn
DR
DR.MR.CR
1 turn
HG
MR. CR. MG
CG. HG. MB. CB
Focus
B.G
To B−PRT Ground
R CPT
P.W.B.
1 turn
SB
SB
Focus B
GB
P31
B−PRT
Ground
To
G PRT Ground
P31
Focus
(G)
G CPT
P.W.B.
GB
GR
GB
GR
To R PRT
Ground
DR
P31
Focus R
R CPT P.W.B
FS
GR
Focus Pack
Focus
(B)(G)(R)
FS
FT
To Conver P.W.B.
Focus
FS.B.G
R
RC
Power
P.W.B.
DA
To Control
P.W.B.
SD
SD
C
Anode G
Anode R
SB
RR
IC1201
Signal P.W.B.
3.
Line
COMB
pack
Sleep
Ferite
Cramp
VH
PP
IC4001
D
SD
P
SL
DA
D.P
HG
HG
IC601
DR
FT
PD.FT.DR
PD
CB
CG
CR
To
Speaker
SL
P
PD
SL
D
SR. VH. CD
CS. CV.
Anode B
DA
PC
PP
DA. SR. CD
VH. CS. CV
CS. CV
SR
CD
PC
PC
SR
SL
IC4002
SD
Q777
P
MR
MG
MB
Anode
G
DR
CR
Anode R
Anode B
Focus
FBT
FS
Q710
Q780
CG
CB
D.P.SL
PD
DA
PD.FT
PD
FT
D.P.SL.DA
attaching
wire clip
PP
P in P
unit
IC4003
CV
CS
CD
SP
terminal
P in P
P.W.B.
3 way P.W.B.
Surround
Pro Logic
P.W.B.
Defrection P.W.B.
Antena Terminal Board

WIRING DIAGRAM

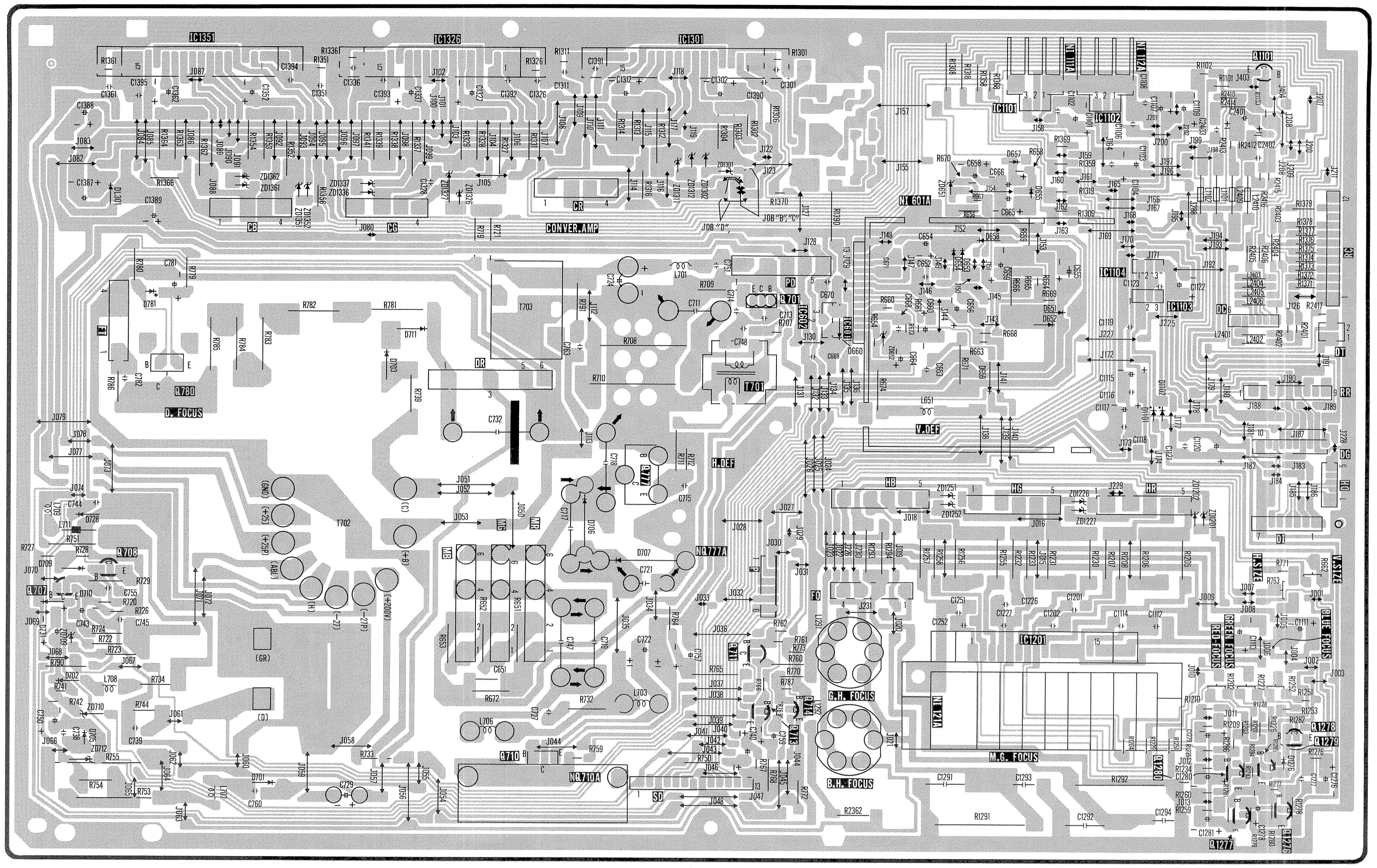

Control P.W.B.
C
CV
CS
CD
VH
(Tweeter)
Orange
Yellow
Brown
Red
Speaker (R)
(Woofer)
Conver Correct P.W.B.
RC
RR
(Tweeter)
Orange
Yellow
Red
Broun
Speaker (L)
(Woofer)
From Signal P.W.B.
CV CS CD Conector
From Signal P.W.B.
C Conector
SIGNAL P.W.B.
DEF P.W.B.
From Deflection P.W.B.
RR RC Conector
From SP Terminal
SL Conector
From SP Terminal
SR Conector

G–PRT only
clamping CPT P.W.B. with SK binder

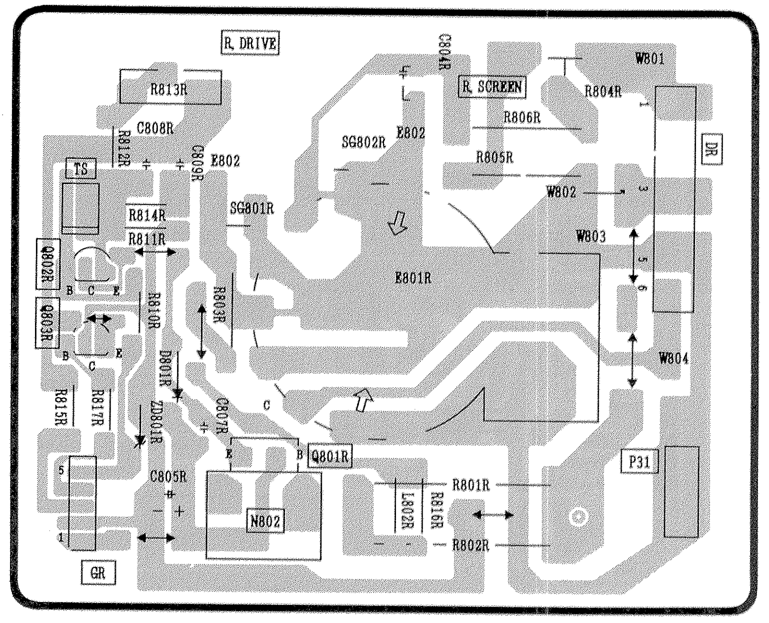

Arriment Magnet
CPT P.W.B.
SK binder

PRINTED WIRING BOARD

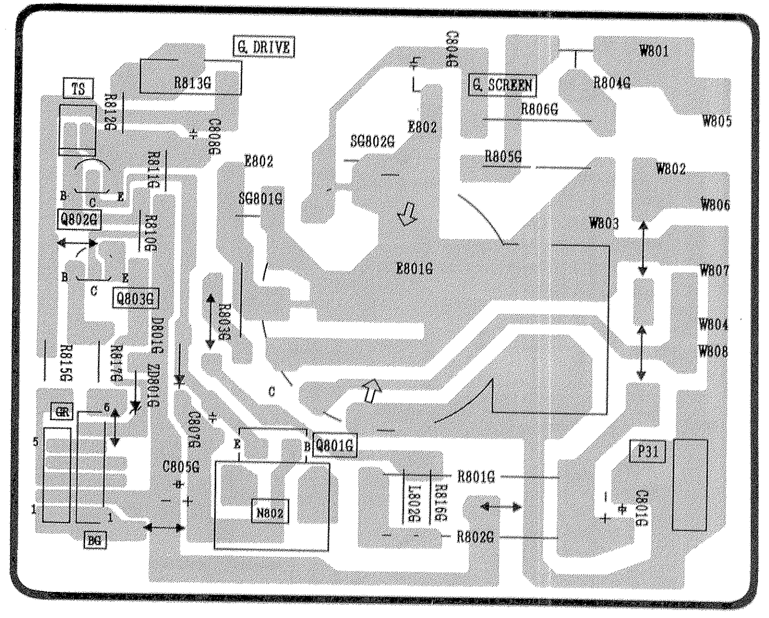
DEFLECTION P.W.B.


IC1351
IC1326
IC1301
IC1101
IC1102
IC1104
IC1103
IC1201
CONVER.AMP
D. FOCUS
V.DEF
H.DEF
G.H. FOCUS
B.H. FOCUS
M.G. FOCUS
T702
T703
T701
Q780
Q708
Q707
Q710
Q701
Q1277
Q1278
Q1279

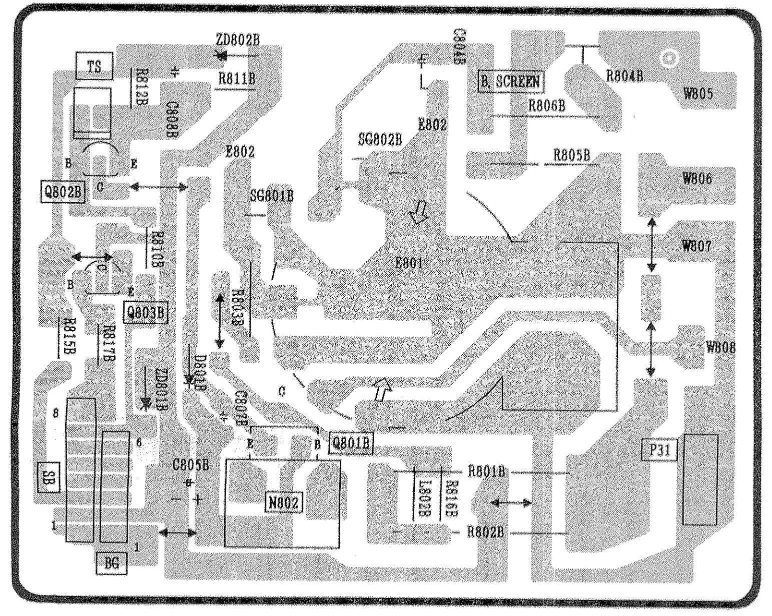
C.P.T. (R) P.W.B.


R. DRIVE
R. SCREEN
Q801R
Q802R
Q803R
SG801R
SG802R
P31

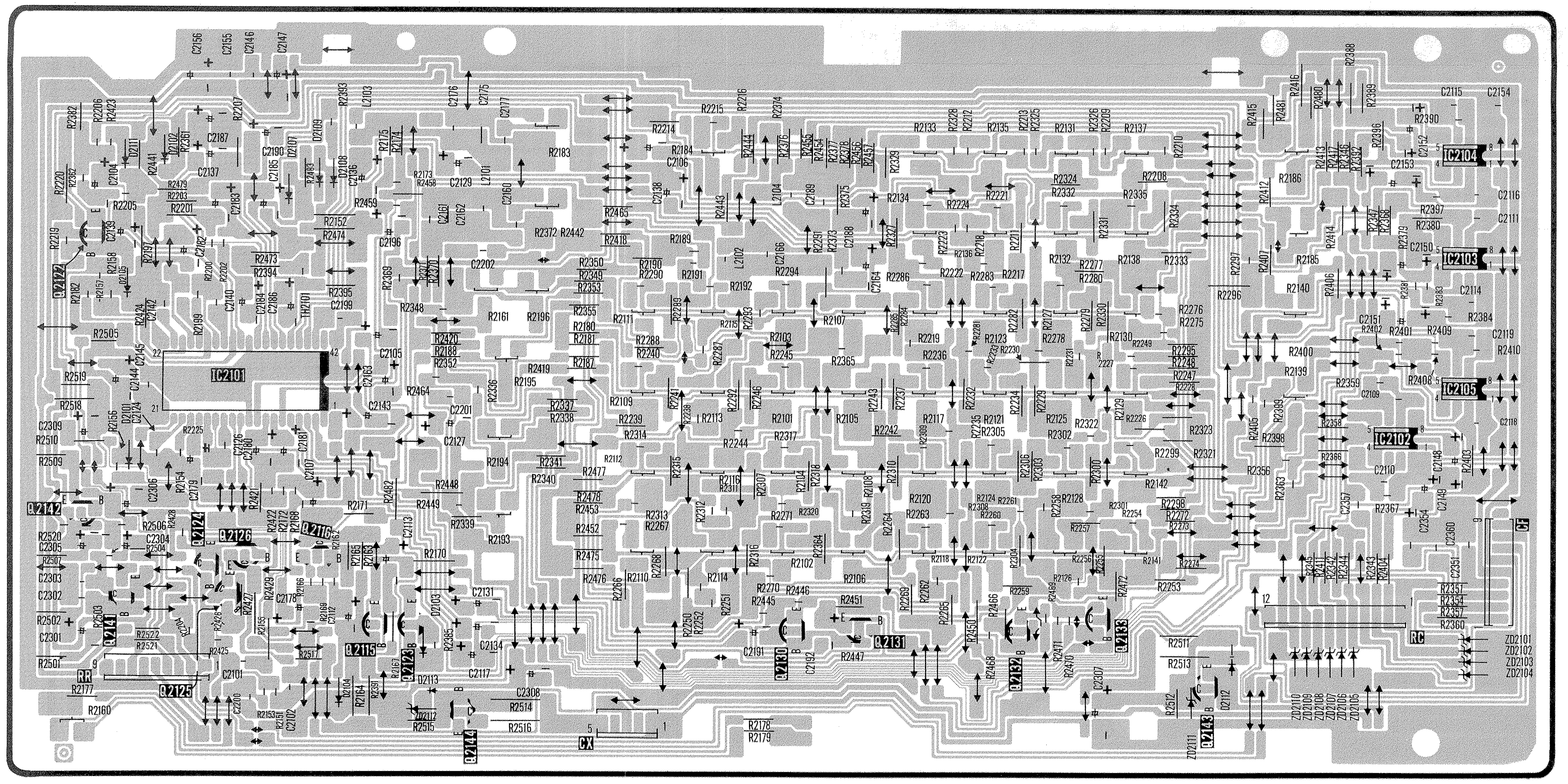
C.P.T. (G) P.W.B.


G. DRIVE
G. SCREEN
Q801G
Q802G
Q803G
SG801G
SG802G
P31

C.P.T. (B) P.W.B.

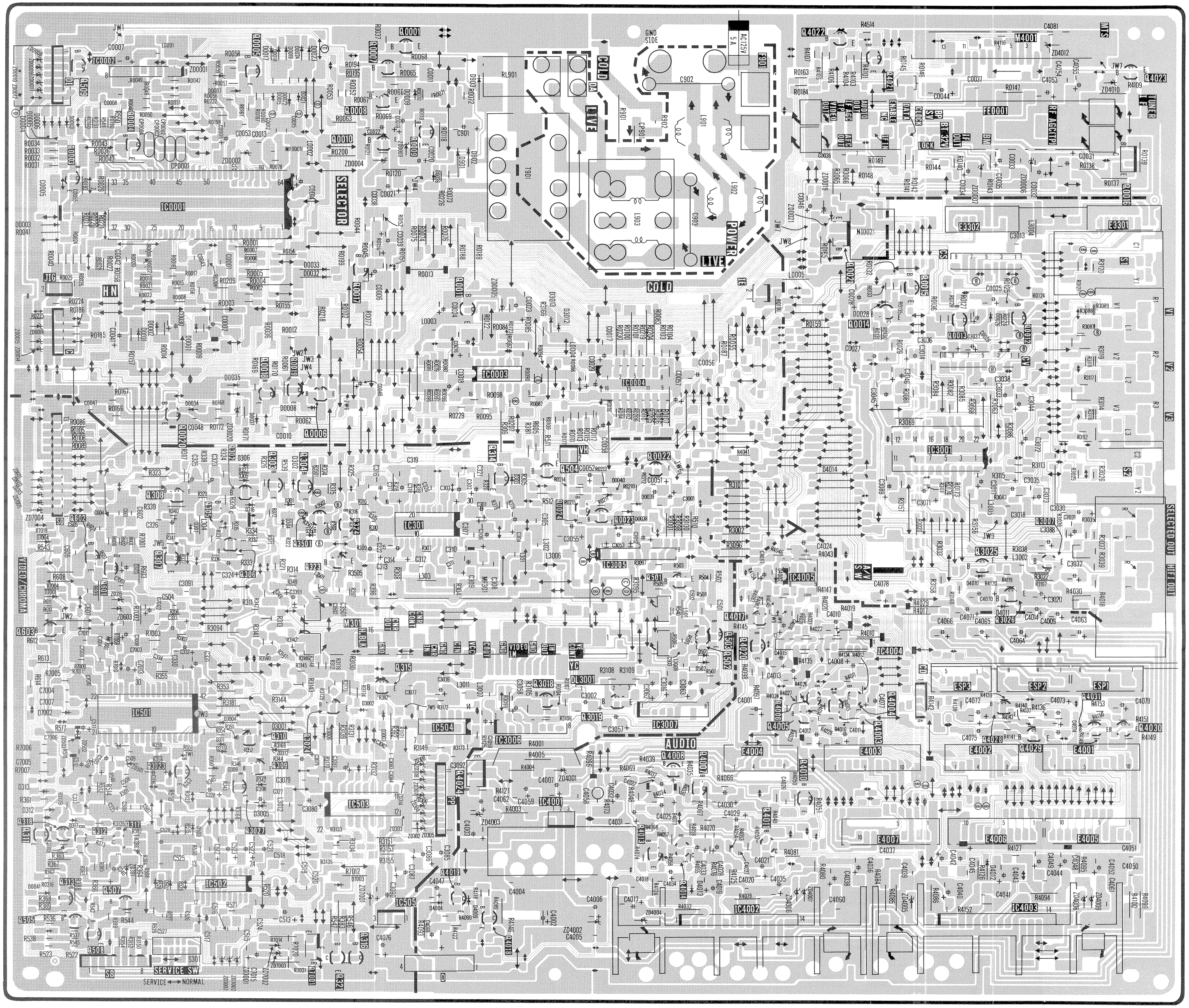

B. SCREEN
Q801B
Q802B
Q803B
SG801B
SG802B
P31

CONVERGENCE CORRECTION P.W.B.


IC2101
IC2102
IC2103
IC2104
IC2105
CX

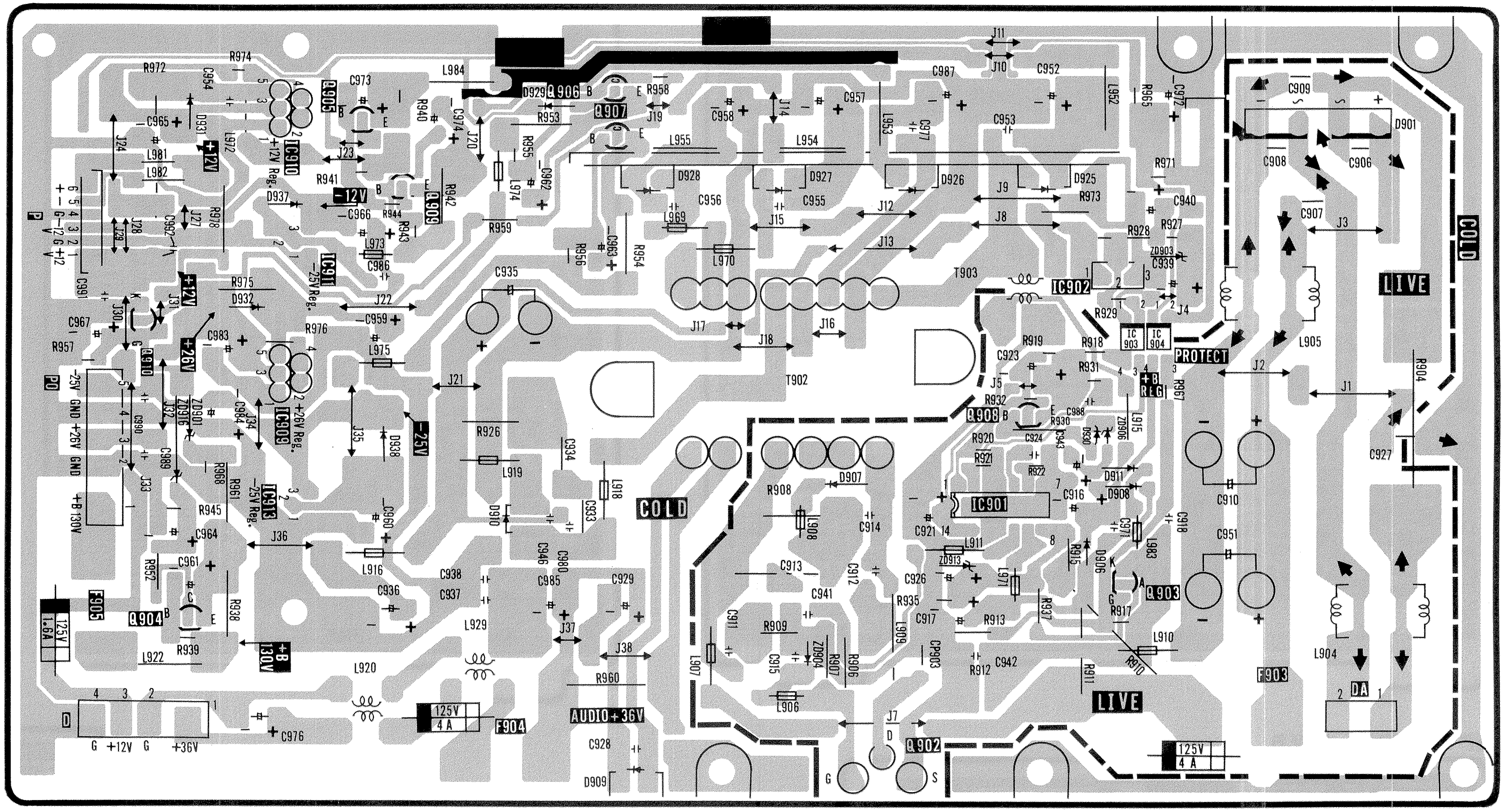
PRINTED WIRING BOARD

SIGNAL P.W.B.

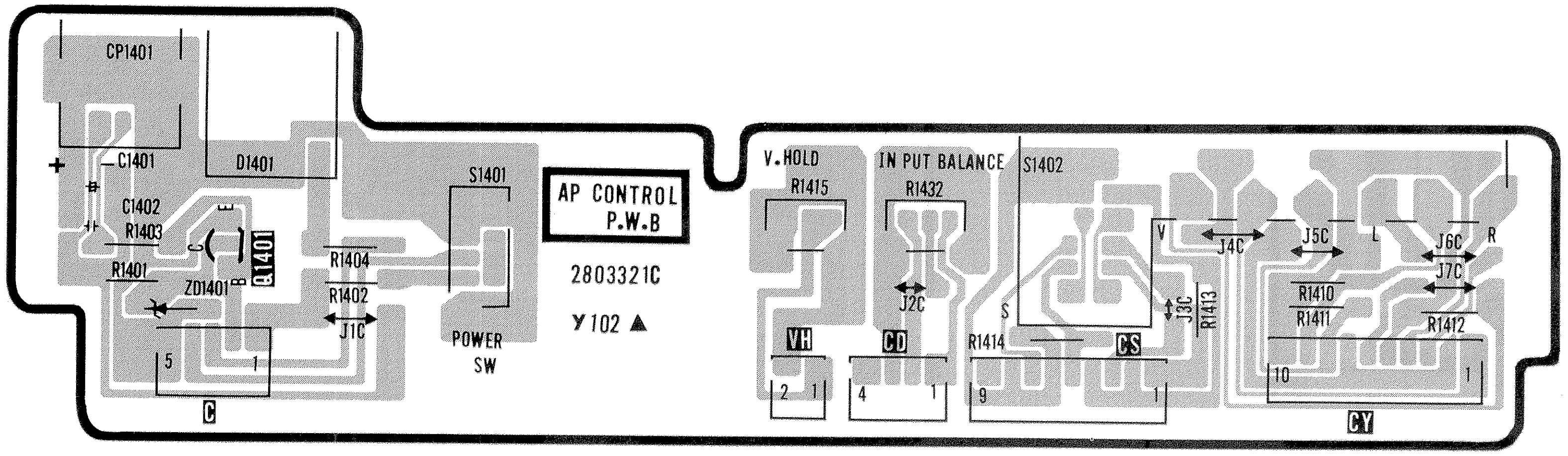


PRINTED WIRING BOARD

POWER SUPPLY P.W.B.

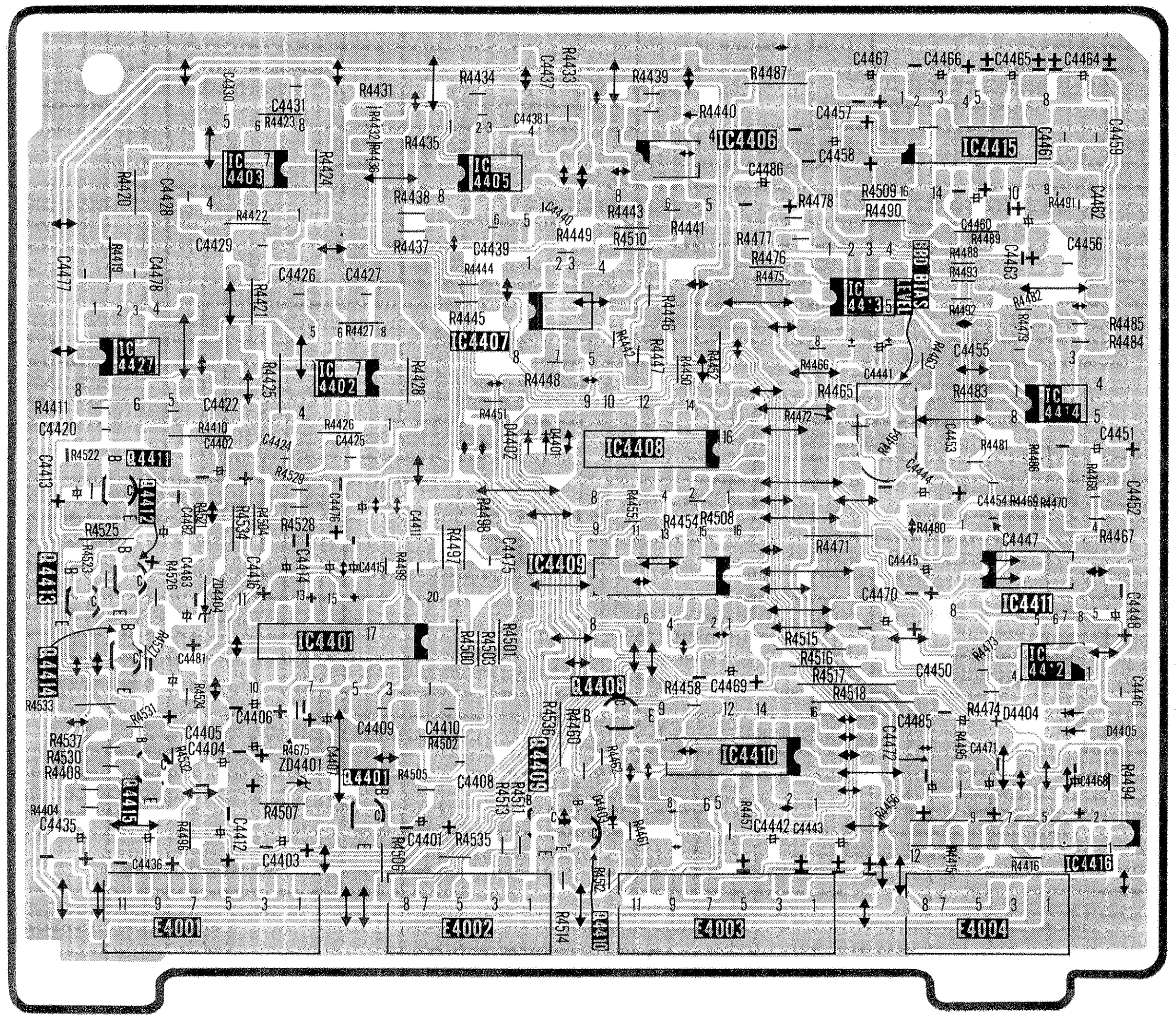

R972
R974
C954
C973
L984
D929
Q906
Q907
R958
C987
J11
J10
C952
L952
R965
C972
C909
D901
C965
D931
Q905
R940
C974
J19
C958
J14
C957
L953
C977
C953
C908
C906
J24
L981
+12V
L972
IC910
+12V Reg.
J23
J20
R953
R955
L955
L954
R971
L982
R941
C962
D928
D927
D926
D925
P
D937
-12V
Q909
R942
L974
C956
C955
J12
J9
R973
C940
C907
J3
6 5 4 3 2 1
+ - G -12 G +12
C992
J27
J28
J29
R978
C966
R944
R943
R959
L969
J15
J8
R928
R927
COLD
L973
C986
IC911
-25V Reg.
R956
C963
R954
L970
J13
ZD903
C939
C991
+12V
R975
D932
C935
T903
IC902
LIVE
J30
J31
J22
C959
R929
J4
C967
R976
J17
J18
J16
R919
IC903
IC904
PROTECT
L905
R957
Q910
+26V
C983
L975
C923
R918
R931
+B REG
R967
J2
R904
PO
-25V GND +26V GND
C990
J32
ZD901
C984
J34
+26V Reg.
IC909
J21
T902
J5
R932
C988
J1
C989
J35
D938
-25V
R926
Q908
R930
C924
C943
D930
ZD906
L915
C927
J33
R968
R961
L919
C934
R920
R921
R922
D911
+B 130V
R945
IC913
-25V Reg.
L918
D907
R908
D908
C916
C910
D910
C933
COLD
IC901
C918
C964
J36
C960
C946
C980
L908
C914
C921
C971
L983
C951
R952
C961
L916
C938
C937
C985
C929
C913
C912
L911
ZD913
R915
D906
C926
C941
L971
Q903
F905
125V 1.6A
Q904
R938
C936
L929
J37
R935
C917
R913
R937
R917
C911
R909
L910
+B 130V
R939
J38
ZD904
CP903
L907
C915
R907
R906
L909
R912
C942
R911
R910
L904
L922
L920
R960
F903
DA
4 3 2 1
D
G +12V G +36V
C976
125V 4A
F904
AUDIO +36V
L906
J7
LIVE
C928
Q902
G D S
125V 4A
D909

CONTROL P.W.B.

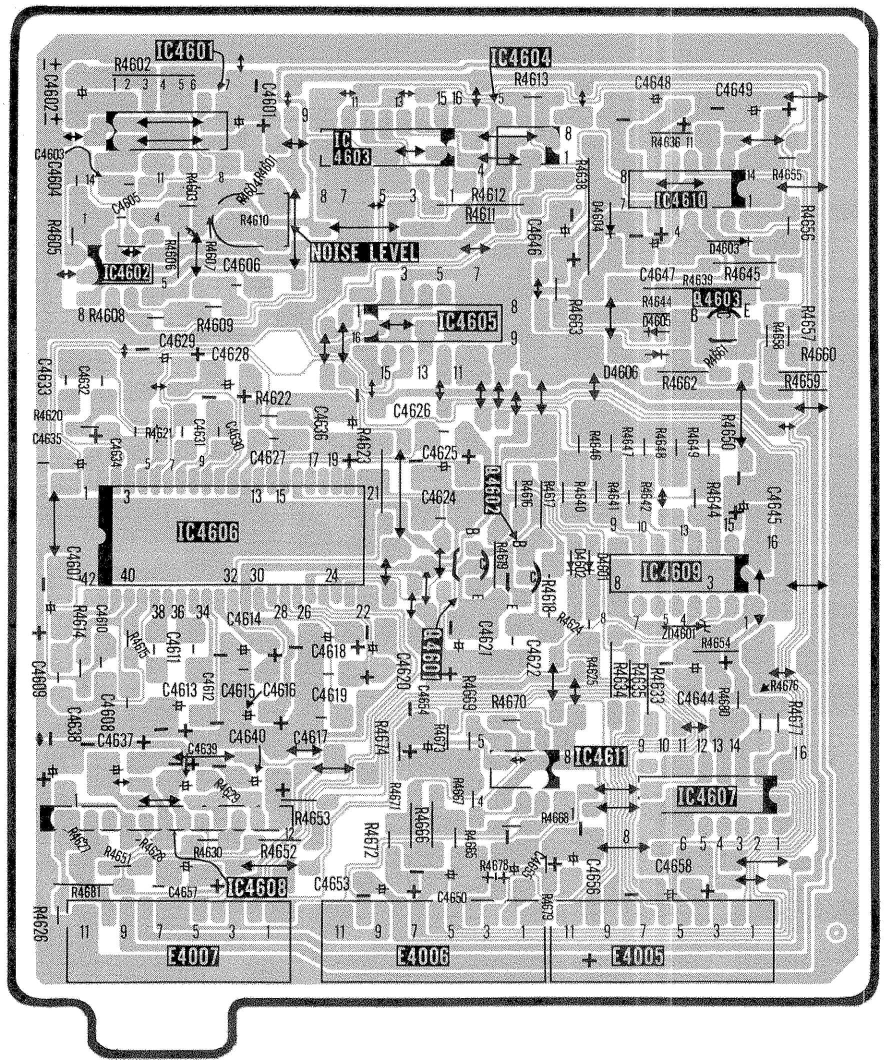

CP1401
C1401
D1401
S1401
AP CONTROL P.W.B
2803321C
Y102 ▲
C1402
R1403
Q1401
R1401
ZD1401
R1404
R1402
J1C
POWER SW
5
1
C
V.HOLD
R1415
VH
2 1
IN PUT BALANCE
R1432
J2C
CD
4 1
S1402
V
S
R1414
CS
J3C
R1413
J4C
J5C
L
J6C
R
J7C
R1410
R1411
R1412
9
10
1
CY

PRINTED WIRING BOARD

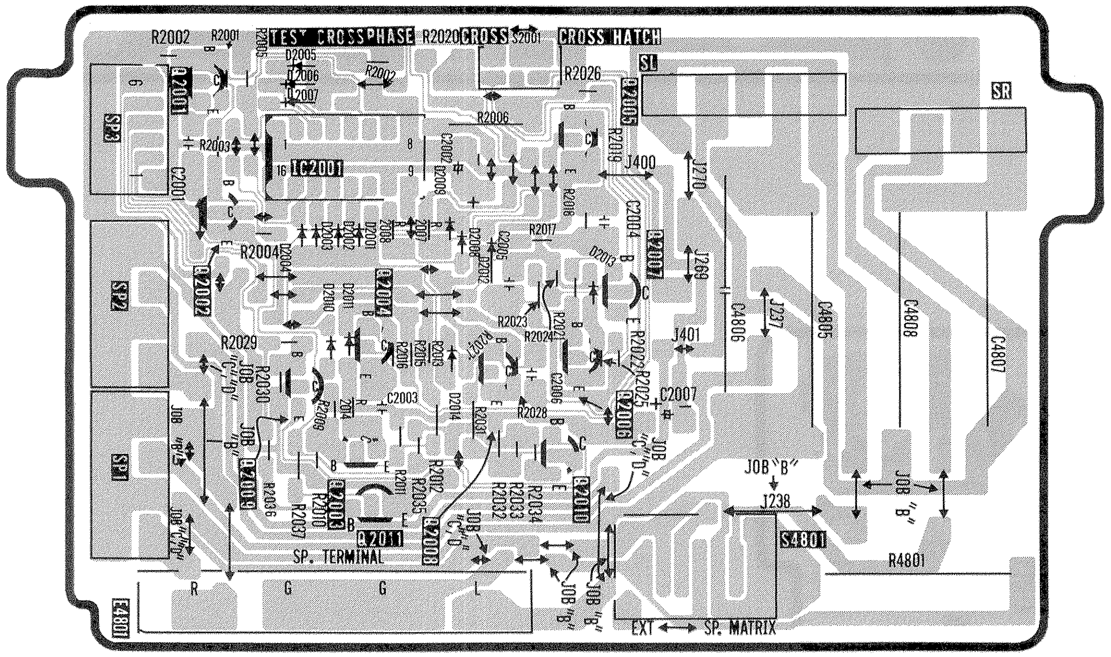
3-WAY P.W.B.


IC4401
IC4402
IC4403
IC4405
IC4406
IC4407
IC4408
IC4409
IC4410
IC4411
IC4412
IC4414
IC4415
IC4416
IC4427
IC4435
E4001
E4002
E4003
E4004
BOD BIAS LEVEL

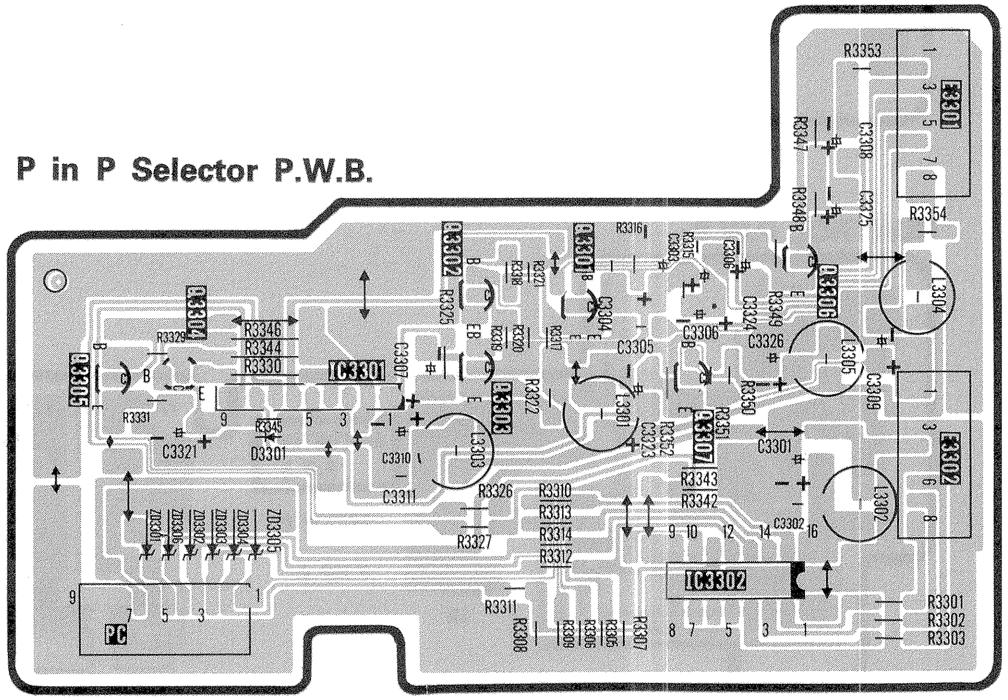
PRO-LOGIC P.W.B.


IC4601
IC4602
IC4603
IC4604
IC4605
IC4606
IC4607
IC4608
IC4609
IC4610
IC4611
NOISE LEVEL
E4005
E4006
E4007

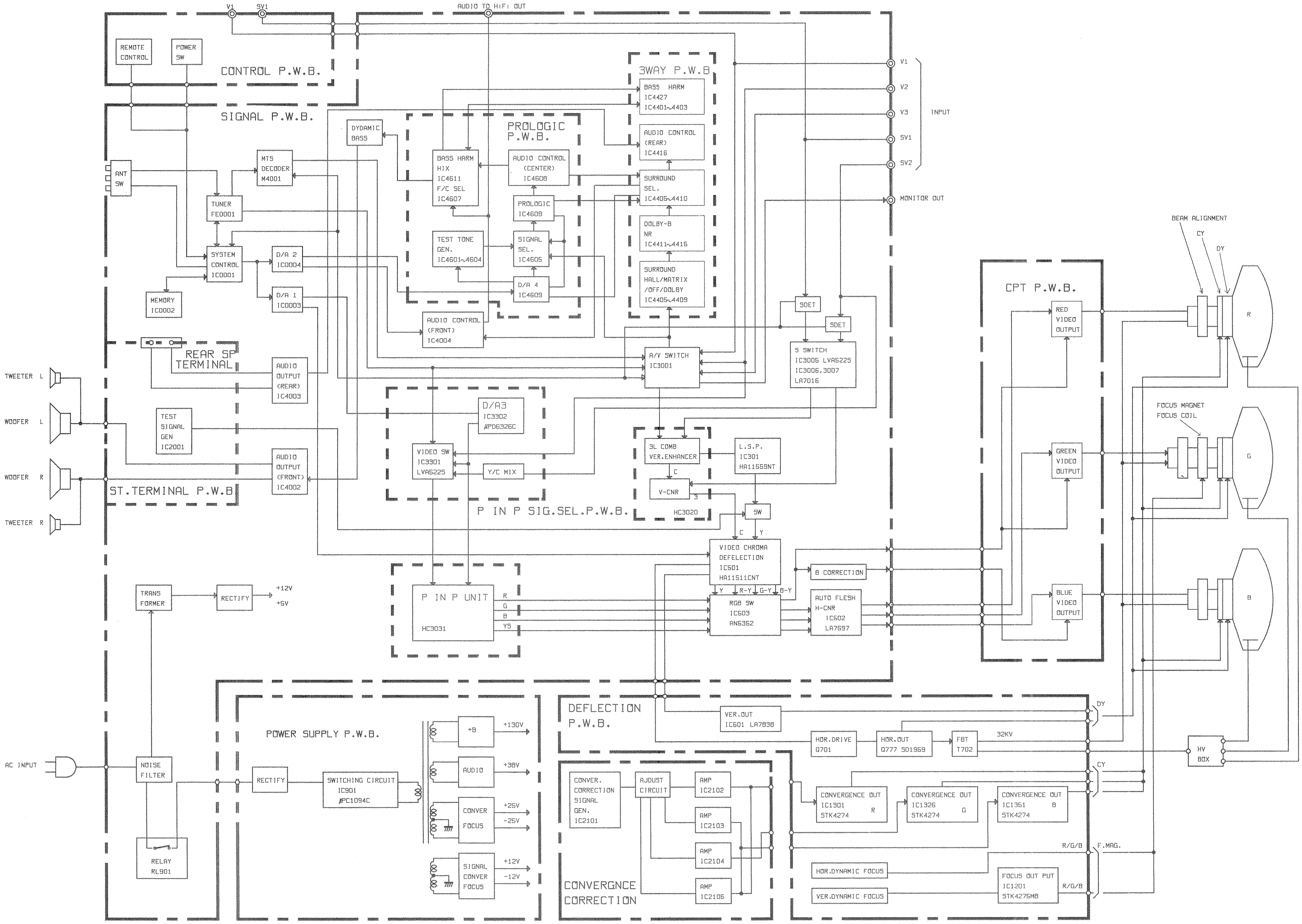
SP TERMINAL P.W.B.


TEST CROSSPHASE
CROSS
CROSS HATCH
IC2001
SP3
SP2
SP1
SL
SR
S4801
SP. TERMINAL
R
G
G
L
EXT ←→ SP. MATRIX
E4801

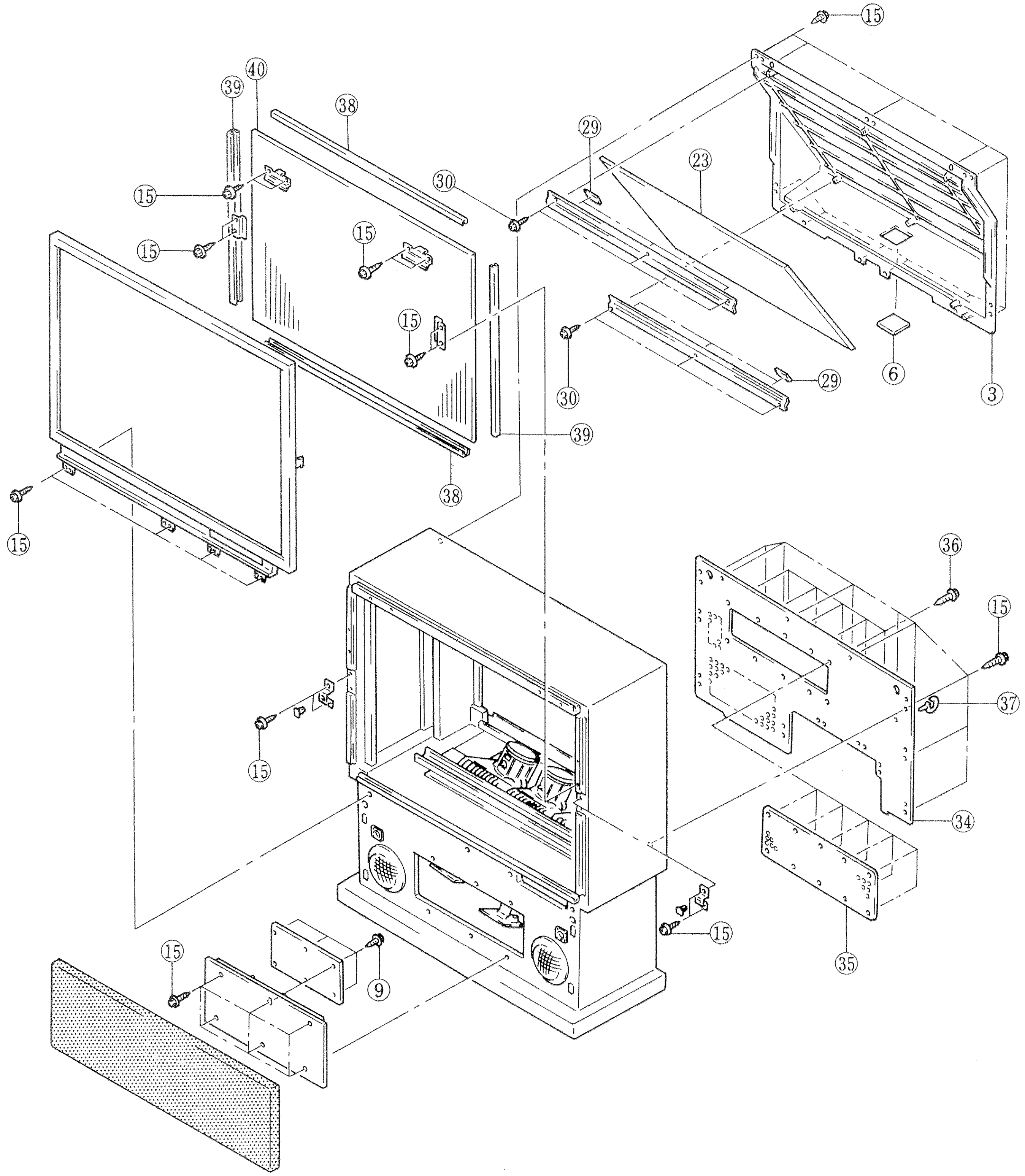
P in P Selector P.W.B.


IC3301
IC3302
E3301
E3302
PC

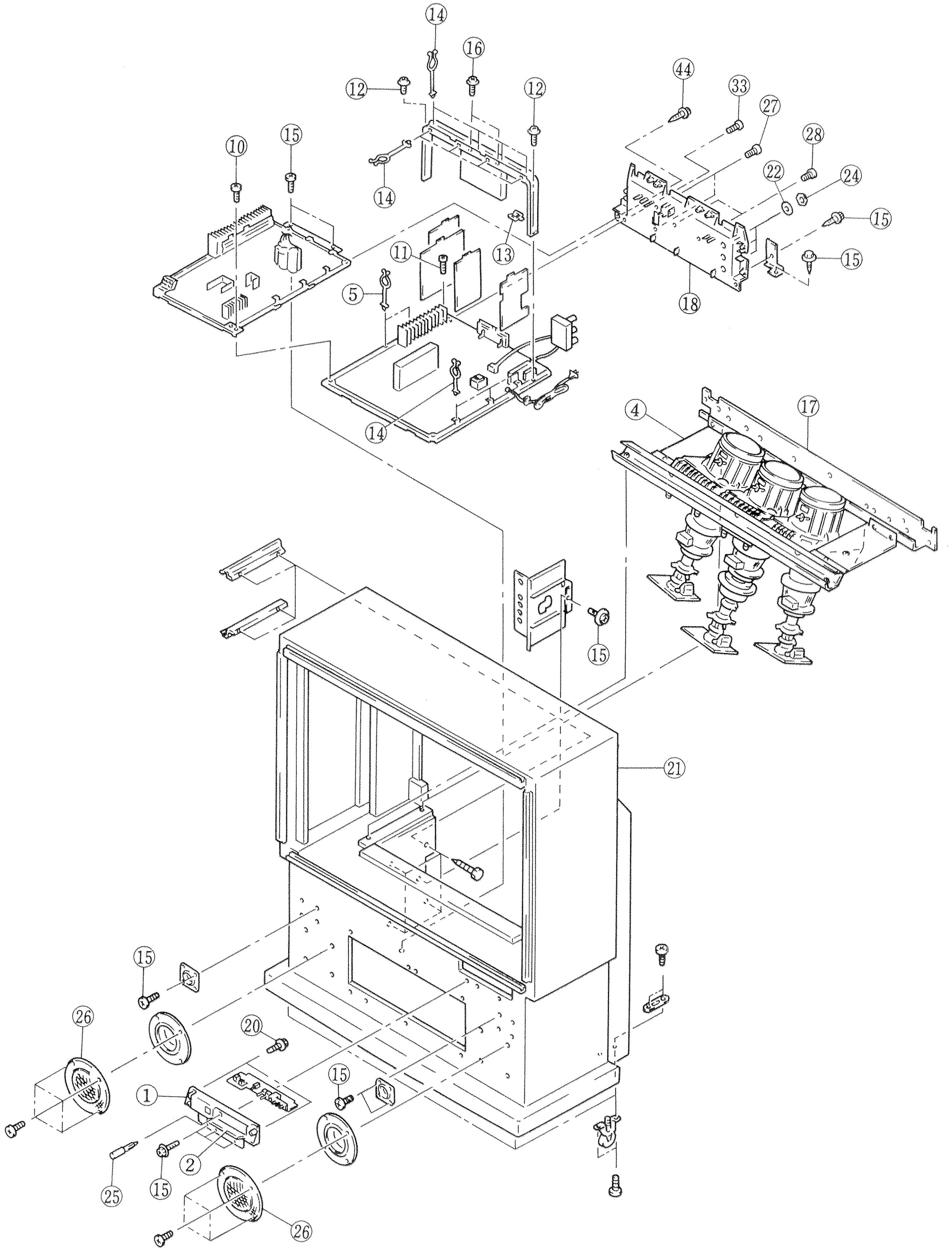
BLOCK DIAGRAM


V1
SV1
AUDIO TO HiFi OUT
REMOTE CONTROL
POWER SW
CONTROL P.W.B.
SIGNAL P.W.B.
DYDAMIC BASS
PROLOGIC P.W.B.
3WAY P.W.B
BASS HARM IC4427 IC4401~4403
AUDIO CONTROL (REAR) IC4416
SURROUND SEL. IC4405~4410
DOLBY-B NR IC4411~4415
SURROUND HALL/MATRIX /OFF/DOLBY IC4405~4409
V1
V2
V3
SV1
SV2
INPUT
MONITOR OUT
ANT SW
MTS DECODER M4001
TUNER FE0001
SYSTEM CONTROL IC0001
MEMORY IC0002
D/A 2 IC0004
D/A 1 IC0003
BASS HARM HIX IC4611 F/C SEL IC4607
AUDIO CONTROL (CENTER) IC4608
PROLOGIC IC4609
TEST TONE GEN. IC4601~4604
SIGNAL SEL. IC4605
D/A 4 IC4609
AUDIO CONTROL (FRONT) IC4004
SDET
SDET
S SWITCH IC3005 LVA6225 IC3006,3007 LA7016
A/V SWITCH IC3001
REAR SP TERMINAL
AUDIO OUTPUT (REAR) IC4003
TWEETER L
WOOFER L
WOOFER R
TWEETER R
TEST SIGNAL GEN IC2001
AUDIO OUTPUT (FRONT) IC4002
ST.TERMINAL P.W.B
D/A3 IC3302 μPD6326C
VIDEO SW IC3301 LVA6225
Y/C MIX
P IN P SIG.SEL.P.W.B.
3L COMB VER.ENHANCER
C
V-CNR
3
HC3020
L.S.P. IC301 HA11559NT
SW
C
Y
VIDEO CHROMA DEFLECTION IC501 HA11511CNT
Y
R-Y
G-Y
B-Y
B CORRECTION
RGB SW IC503 AN5352
AUTO FLESH H-CNR IC502 LA7697
P IN P UNIT
HC3031
R
G
B
YS
TRANS FORMER
RECTIFY
+12V
+5V
CPT P.W.B.
RED VIDEO OUTPUT
GREEN VIDEO OUTPUT
BLUE VIDEO OUTPUT
BEAM ALIGNMENT
CY
DY
R
FOCUS MAGNET
FOCUS COIL
G
B
AC INPUT
NOISE FILTER
RELAY RL901
POWER SUPPLY P.W.B.
RECTIFY
SWITCHING CIRCUIT IC901 μPC1094C
+B
+130V
AUDIO
+38V
CONVER FOCUS
+25V
-25V
SIGNAL CONVER FOCUS
+12V
-12V
DEFLECTION P.W.B.
VER.OUT IC601 LA7838
HOR.DRIVE Q701
HOR.OUT Q777 SD1959
FBT T702
32KV
DY
HV BOX
CY
CONVER. CORRECTION SIGNAL GEN. IC2101
ADJUST CIRCUIT
AMP IC2102
AMP IC2103
AMP IC2104
AMP IC2105
CONVERGNCE CORRECTION
CONVERGENCE OUT IC1301 R STK4274
CONVERGENCE OUT IC1326 G STK4274
CONVERGENCE OUT IC1351 B STK4274
R/G/B
F.MAG.
HOR.DYNAMIC FOCUS
VER.DYNAMIC FOCUS
FOCUS OUT PUT IC1201 STK4275MB
R/G/B

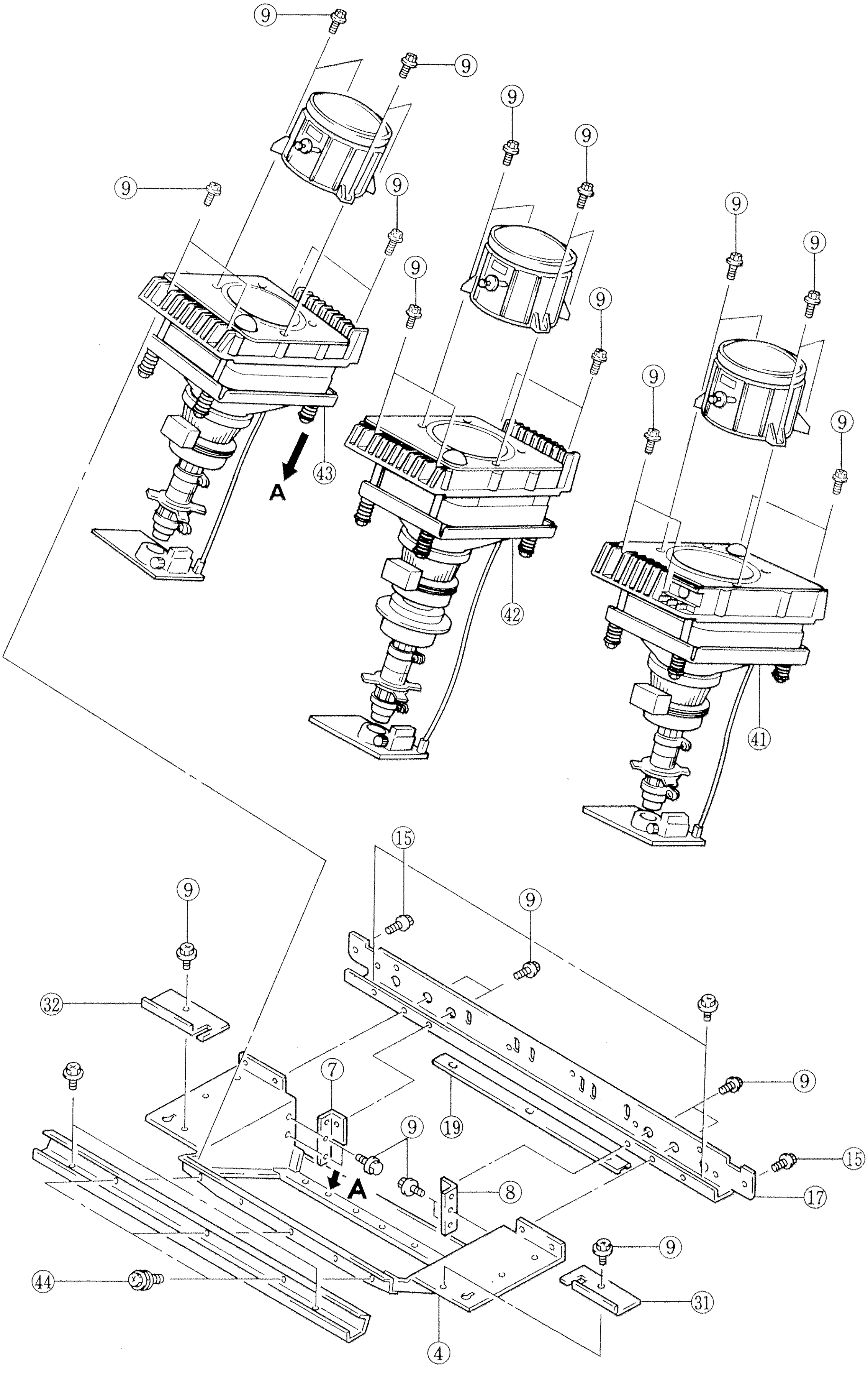
EXPLODED VIEW (1/3)


15
39
40
38
15
15
30
29
23
15
15
3
6
30
29
39
38
15
36
15
37
15
34
15
15
9
35

EXPLODED VIEW (2/3)


14
16
12
12
44
33
27
28
10
15
22
24
14
15
11
13
15
5
18
14
4
17
15
21
15
26
20
1
15
2
25
15
26

EXPLODED VIEW (3/3)


9
9
9
9
9
9
9
9
9
9
9
9
43
A
42
41
15
9
9
32
7
9
19
9
15
17
8
A
9
44
31
4

REPLACEMENT PARTS LIST

PRODUCT SAFETY NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS		
	Capacitors	CD:Ceramic disk, PF:Polyester film, EL:Electrolytic, PP:Polypropylene, PR:Paper, TA:Tantalum, TM:Trimmer.
	Resistors	CF:Carbon film, CC:Carbon composition, MF:Metal oxide film, VR:Variable resistor, WW:Wire would, FR:Fuse resistor, MG:Metal glazed
	Semiconductor	TR:Transistor, DI:Diode, ZD:Zener diode, VA:Varistor, TH:Thermistor, IC:IC.

SYSMBOL NO.	PART NO.	DESCRIPTION
		CAPACITORS
C0001	0247854	CD 100PF +-5% 500V
C0002	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0005	0248690	CD 180PF +-5% 50V
C0006	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0007	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0008	0880016	PF 0.1MF +-10% 50V
C0009	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0010	0244105	CD 2200PF +-10% 50V
C0011	0880012	PF 0.022MF +-10% 50V
C0012	0248672	CD 33PF +-5% 50V
C0013	0248672	CD 33PF +-5% 50V
C0014	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0015	0880016	PF 0.1MF +-10% 50V
C0016	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0017	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0018	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0019	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0020	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0021	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0022	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0023	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0024	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0025	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0026	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C0027	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0028	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C0029	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0030	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0031	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C0032	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C0033	0880057	PF 0.1MF +-10% 50V
C0034	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C0035	0800047	CAPACITOR ELECTROLYTIC 100MF 6.3V
C0036	0880053	PF 0.047MF +-10% 50V
C0037	0880009	PF 0.01MF +-10% 50V
C0038	0244501	CD 1000PF +-10% 500V
C0039	0252419	EL 3.3MF 50V
C0041	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0042	0247854	CD 100PF +-5% 500V
C0043	0247854	CD 100PF +-5% 500V
C0044	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0046	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0047	0890084	CD 560PF +-10% 50V
C0048	0880013	PF 0.033MF +-10% 50V
C0049	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C0051	0251089	EL 4.7MF 25V
C0052	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C0053	0880044	PF 0.01MF +-10% 50V
C0055	0880009	PF 0.01MF +-10% 50V
C0056	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0057	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C0058	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1111	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C1112	0244141	CD 0.01MF +-10% 50V
C1113	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C1114	0244141	CD 0.01MF +-10% 50V
C1115	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1116	0244141	CD 0.01MF +-10% 50V
C1117	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C1118	0244141	CD 0.01MF +-10% 50V
C1226	0890074	CD 100PF +-5% 50V
C1227	0890074	CD 100PF +-5% 50V
C1276	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C1277	0880018	PF 0.22MF +-10% 50V
C1278	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C1280	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C1291	0299996	PP 0.033MF. +-5% 630V
C1293	0299610F	PP 1000PF +-5% 630V
C1301	0244139	CD 1000PF +-10% 50V
C1302	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C1312	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C1326	0244139	CD 1000PF +-10% 50V
C1327	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C1336	0244139	CD 1000PF +-10% 50V
C1337	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C1351	0244139	CD 1000PF +-10% 50V
C1352	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C1362	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C1387	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V
C1388	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C1389	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V
C1391	0248688	CD 150PF +-5% 50V
C1393	0248688	CD 150PF +-5% 50V
C1395	0248688	CD 150PF +-5% 50V
C1401	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V

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SYSMBOL NO.	PART NO.	DESCRIPTION
C1402	0890087	CD 1000PF +-10% 50V
C2001	0880044	PF 0.01MF +-10% 50V
C2002	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C2003	0890083	CD 470PF +-10% 50V
C2004	0890085	CD680PF +-10% 50V
C2005	0880031	PF 1000PF +-10% 50V
C2006	0890121	CD 33PF +-5% 50V
C2007	0800058	CAPACITOR ELECTROLYTIC 220MF 16V
C2101	0244136	CD 270PF +-10% 50V
C2102	0880001	PF 680PF +-10% 50V
C2104	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2105	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2106	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2107	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2112	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V
C2113	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2117	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2124	0880005	PF 2200PF +-10% 50V
C2126	0299001	PP 0.001MF +-2% 100V
C2127	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2129	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2131	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2137	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C2138	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2139	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2140	0880014	PF 0.047MF +-10% 50V
C2142	0880016	PF 0.1MF +-10% 50V
C2143	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C2144	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C2145	0244141	CD 0.01MF +-10% 50V
C2146	0244141	CD 0.01MF +-10% 50V
C2147	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C2148	0252417	EL 1MF 50V
C2149	0252417	EL 1MF 50V
C2150	0252417	EL 1MF 50V
C2151	0252417	EL 1MF 50V
C2152	0252417	EL 1MF 50V
C2153	0252417	EL 1MF 50V
C2154	0244229	CD 150PF +-10% 50V
C2155	0244141	CD 0.01MF +-10% 50V
C2156	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C2160	0880011	PF 0.015MF +-10% 50V
C2161	0880009	PF 0.01MF +-10% 50V
C2162	0299029	PP 0.015MF +-2% 100V
C2163	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2164	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2166	0880013	PF 0.033MF +-10% 50V
C2175	0299029	PP 0.015MF +-2% 100V
C2176	0880009	PF 0.01MF +-10% 50V
C2177	0880011	PF 0.015MF +-10% 50V
C2178	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2179	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2180	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2181	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2182	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2183	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2184	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2185	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2186	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2187	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2188	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2189	0880013	PF 0.033MF +-10% 50V
C2190	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2191	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C2192	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C2301	0800074	CAPACITOR ELECTROLYTIC 470MF 16V
C2302	0244118	CD 470PF +-10% 50V
C2303	0244120	CD 820PF +-10% 50V
C2304	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C2309	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C3001	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3002	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C301	0252396	EL 10MF 16V
C3013	0248662	CD 12PF +-5% 50V
C3014	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3016	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3017	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3018	0880044	PF 0.01MF +-10% 50V
C302	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3020	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C303	0890067	CD33PF +-5% 50V
C3030	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3031	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3032	0800074	CAPACITOR ELECTROLYTIC 470MF 16V
C3033	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3035	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3036	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3037	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3038	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C304	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3044	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3045	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3046	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C305	0244171	CD 0.01MF +80-20% 50V
C3052	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3053	0252398	EL 47MF 16V
C3055	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3057	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3058	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3059	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C306	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3062	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3063	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C307	0244171	CD 0.01MF +80-20% 50V
C3071	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3072	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3073	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3076	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3077	0880009	PF 0.01MF +-10% 50V
C3078	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
C3079	0880009	PF 0.01MF +-10% 50V	C333	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C308	0890115	CD12PF +-5% 50V	C334	0244171	CD 0.01MF +80-20% 50V
C3080	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C335	0880057	PF 0.1MF +-10% 50V
C3081	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C336	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3082	0880009	PF 0.01MF +-10% 50V	C337	0890083	CD 470PF +-10% 50V
C3083	0880009	PF 0.01MF +-10% 50V	C339	0284667	EL 47MF 16V
C3084	0880009	PF 0.01MF +-10% 50V	C340	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3085	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4001	0252953	EL 4700MF 16V
C3086	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4002	0259411F	EL 3300MF 50V
C3087	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4003	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C3088	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4004	0880057	PF 0.1MF +-10% 50V
C3089	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4005	0880057	PF 0.1MF +-10% 50V
C309	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4006	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C3090	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4007	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3091	0880016	PF 0.1MF +-10% 50V	C4008	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3092	0880016	PF 0.1MF +-10% 50V	C4009	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C310	0244171	CD 0.01MF +80-20% 50V	C4010	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V
C311	0244171	CD 0.01MF +80-20% 50V	C4011	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C312	0890059	CD 9PF +-0.5% 50V	C4012	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C313	0244171	CD 0.01MF +80-20% 50V	C4013	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C314	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4014	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C315	0244171	CD 0.01MF +80-20% 50V	C4015	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V
C316	0244171	CD 0.01MF +80-20% 50V	C4016	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C317	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4017	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C318	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4018	0880031	PF 1000PF +-10% 50V
C319	0890084	CD 560PF +-10% 50V	C4019	0800067	CAPACITOR,ELECTROLYTIC 330MF 25V
C320	0890087	CD 1000PF +-10% 50V	C4020	0880031	PF 1000PF +-10% 50V
C321	0800023	CAPACITOR ELECTROLYTIC 22MF 16V	C4021	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C322	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4022	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C323	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C4024	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C324	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C4025	0251087	EL 1MF 25V
C325	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C4026	0880053	PF 0.047MF +-10% 50V
C326	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4027	0880053	PF 0.047MF +-10% 50V
C327	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4028	0251087	EL 1MF 25V
C328	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4029	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C329	0244171	CD 0.01MF +80-20% 50V	C4030	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C330	0244171	CD 0.01MF +80-20% 50V	C4031	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C3301	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4032	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C3302	0880044	PF 0.01MF +-10% 50V	C4033	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C3303	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4034	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C3304	0880044	PF 0.01MF +-10% 50V	C4035	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C3305	0880057	PF 0.1MF +-10% 50V	C4036	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C3306	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4037	0880057	PF 0.1MF +-10% 50V
C3307	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4038	0800077	CAPACITOR,ELECTROLYTIC 470MF 50V
C3308	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4039	0880057	PF 0.1MF +-10% 50V
C3309	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4040	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C331	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C4041	0880031	PF 1000PF +-10% 50V
C3310	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4042	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3311	0880044	PF 0.01MF +-10% 50V	C4043	0800067	CAPACITOR,ELECTROLYTIC 330MF 25V
C332	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4044	0880031	PF 1000PF +-10% 50V
C3321	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4045	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C3323	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4047	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C3324	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C4048	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C3325	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4049	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C3326	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V	C4050	0880057	PF 0.1MF +-10% 50V

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SYSMBOL NO.	PART NO.	DESCRIPTION
C4051	0880057	PF 0.1MF +-10% 50V
C4052	0800077	CAPACITOR,ELECTROLYTIC 470MF 50V
C4053	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4054	0880044	PF 0.01MF +-10% 50V
C4055	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4058	0880057	PF 0.1MF +-10% 50V
C4059	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4060	0880057	PF 0.1MF +-10% 50V
C4061	0880057	PF 0.1MF +-10% 50V
C4062	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4063	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4064	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4065	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4066	0800083	CAPACITOR ELECTROLYTIC 1000MF 25V
C4067	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4068	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C4070	0800026	CAPACITOR ELECTROLYTIC 22MF 50V
C4071	0800026	CAPACITOR ELECTROLYTIC 22MF 50V
C4072	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4073	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4074	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4075	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4076	0800082	CAPACITOR ELECTROLYTIC 1000MF 16V
C4077	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4078	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4079	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4081	0880057	PF 0.1MF +-10% 50V
C4401	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4402	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4403	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4404	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4405	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4406	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V
C4407	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C4408	0880057	PF 0.1MF +-10% 50V
C4409	0880055	PF 0.068MF +-10% 50V
C4410	0880037	PF 3300PF +-10% 50V
C4411	0248640	CD 10PF +-0.25% 50V
C4412	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4413	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C4414	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4415	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4416	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4420	0880048	PF 0.022MF +-10% 50V
C4422	0880048	PF 0.022MF +-10% 50V
C4424	0880035	PF 2200PF +-10% 50V
C4425	0880048	PF 0.022MF +-10% 50V
C4426	0244104	CD 1800PF +-10% 50V
C4427	0880048	PF 0.022MF +-10% 50V
C4428	0244104	CD 1800PF +-10% 50V
C4429	0880051	PF 0.033MF +-10% 50V
C4430	0880034	PF 1800PF +-10% 50V
C4431	0880013	PF 0.033MF +-10% 50V
C4435	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4436	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4437	0248684	CD 100PF +-5% 50V
C4438	0248684	CD 100PF +-5% 50V
C4439	0248688	CD 150PF +-5% 50V
C4440	0880035	PF 2200PF +-10% 50V
C4441	0252417	EL 1MF 50V
C4442	0252417	EL 1MF 50V
C4443	0252417	EL 1MF 50V
C4444	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4445	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C4446	0880044	PF 0.01MF +-10% 50V
C4447	0880044	PF 0.01MF +-10% 50V
C4448	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C4450	0248684	CD 100PF +-5% 50V
C4451	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4452	0244139	CD 1000PF +-10% 50V
C4453	0244109	CD 4700PF +-10% 50V
C4454	0880041	PF 5600PF +-10% 50V
C4455	0249093	CD 470PF +-5% 50V
C4456	0880041	PF 5600PF +-10% 50V
C4457	0800105	CAPACITOR ELECTROLYTIC 0.33MF 50V
C4458	0800101	CAPACITOR ELECTROLYTIC 0.1MF 50V
C4459	0880049	PF 0.027MF +-10% 50V
C4460	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4461	0880053	PF 0.047MF +-10% 50V
C4462	0880039	PF 4700PF +-10% 50V
C4463	0252417	EL 1MF 50V
C4464	0252417	EL 1MF 50V
C4465	0252410	EL 10MF 35V
C4466	0800059	CAPACITOR ELECTROLYTIC 220MF 25V
C4467	0800051	CAPACITOR ELECTROLYTIC 100MF 25V
C4468	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V
C4469	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4470	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4471	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V
C4472	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4475	0880051	PF 0.033MF +-10% 50V
C4476	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C4477	0880033	PF 1500PF +-10% 50V
C4478	0880051	PF 0.033MF +-10% 50V
C4481	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4482	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4483	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C4485	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4486	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4601	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4602	0252417	EL 1MF 50V
C4603	0880044	PF 0.01MF +-10% 50V
C4604	0244139	CD 1000PF +-10% 50V
C4605	0880044	PF 0.01MF +-10% 50V
C4606	0880044	PF 0.01MF +-10% 50V
C4607	0800016	CAPACITOR ELECTROLYTIC 10MF 25V
C4608	0244117	CD 680PF +-10% 50V
C4609	0880057	PF 0.1MF +-10% 50V
C4610	0880057	PF 0.1MF +-10% 50V
C4611	0880019	PF 0.33MF +-10% 50V

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
C4612	0880019	PF 0.33MF +-10% 50V	C511	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4613	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V	C512	0880009	PF 0.01MF +-10% 50V
C4614	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V	C513	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4615	0244111	CD 6800PF +-10% 50V	C515	0890076	CD 150PF +-10% 50V
C4616	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C516	0890076	CD 150PF +-10% 50V
C4617	0880062	PF 0.22MF +-10% 50V	C517	0890076	CD 150PF +-10% 50V
C4618	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C518	0890067	CD 33PF +-5% 50V
C4619	0880062	PF 0.22MF +-10% 50V	C519	0890067	CD 33PF +-5% 50V
C4620	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C520	0890067	CD 33PF +-5% 50V
C4621	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C521	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4622	0276673	PF 0.47MF +-10% 50V	C522	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4624	0880062	PF 0.22MF +-10% 50V	C523	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4625	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V	C524	0244171	CD 0.01MF +80-20% 50V
C4626	0880062	PF 0.22MF +-10% 50V	C525	0244171	CD 0.01MF +80-20% 50V
C4627	0244111	CD 6800PF +-10% 50V	C526	0244171	CD 0.01MF +80-20% 50V
C4628	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V	C527	0244171	CD 0.01MF +80-20% 50V
C4629	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V	C528	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4630	0880057	PF 0.1MF +-10% 50V	C601	0880009	PF 0.01MF +-10% 50V
C4631	0880057	PF 0.1MF +-10% 50V	C602	0880014	PF 0.047MF +-10% 50V
C4632	0880057	PF 0.1MF +-10% 50V	C603	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4633	0880057	PF 0.1MF +-10% 50V	C604	0880005	PF 2200PF +-10% 50V
C4634	0244117	CD 680PF +-10% 50V	C605	0880006	PF 3300PF +-10% 50V
C4635	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C606	0880016	PF 0.1MF +-10% 50V
C4636	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C607	0880006	PF 3300PF +-10% 50V
C4637	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C651	0279859	PF 0.1MF +-10% 100V
C4638	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C652	0880013	PF 0.033MF +-10% 50V
C4639	0800103	CAPACITOR ELECTROLYTIC 0.22MF 50V	C653	0880044	PF 0.01MF +-10% 50V
C4640	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	⚠C654	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V
C4644	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C655	0252969	EL 2200MF 25V
C4645	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C656	0800069	CAPACITOR,ELECTROLYTIC 330MF 50V
C4646	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C658	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C4647	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V	C659	0251087	EL 1MF 25V
C4648	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	⚠C660	0292716	TA 1MF +-10% 20V
C4649	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V	C664	0800074	CAPACITOR ELECTROLYTIC 470MF 16V
C4650	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C665	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C4653	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C666	0800012	CAPACITOR ELECTROLYTIC 4.7MF 50V
C4654	0800041	CAPACITOR ELECTROLYTIC 47MF 16V	C668	0880044	PF 0.01MF +-10% 50V
C4655	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C669	0880018	PF 0.22MF +-10% 50V
C4656	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C670	0880018	PF 0.22MF +-10% 50V
C4657	0800003	CAPACITOR ELECTROLYTIC 1MF 50V	C7001	0890084	CD 560PF +-10% 50V
C4658	0800016	CAPACITOR ELECTROLYTIC 10MF 25V	C7002	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C4805	0257048	EL 2.2MF 25V	C7003	0244104	CD 1800PF +-10% 50V
C4806	0257048	EL 2.2MF 25V	C7004	0880012	PF 0.022MF +-10% 50V
C4807	0257048	EL 2.2MF 25V	C7005	0890083	CD 470PF +-10% 50V
C4808	0257048	EL 2.2MF 25V	C7006	0890087	CD 1000PF +-10% 50V
C501	0880009	PF 0.01MF +-10% 50V	C7007	0880014	PF 0.047MF +-10% 50V
C502	0890063	CD 15PF +-5% 50V	C7008	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C503	0880009	PF 0.01MF +-10% 50V	C7009	0880004	PF 1500PF +-10% 50V
C504	0880009	PF 0.01MF +-10% 50V	C7010	0244107	CD 3300PF +-10% 50V
C505	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V	C7012	0880012	PF 0.022MF +-10% 50V
C506	0244171	CD 0.01MF +80-20% 50V	C7013	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C507	0244171	CD 0.01MF +80-20% 50V	C7014	0880014	PF 0.047MF +-10% 50V
C508	0246443	CD 13PF +-5% 50V	C7015	0800015	CAPACITOR,ELECTROLYTIC 10MF 16V
C509	0244171	CD 0.01MF +80-20% 50V	C711	0299926	PP 0.1MF +-10% 200V
C510	0800001	CAPACITOR ELECTROLYTIC 0.47MF 50V	C713	0244501	CD 1000PF +-10% 500V

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SYSMBOL NO.	PART NO.	DESCRIPTION
C714	0243507	CD 330PF +-10% 500V
C715	0890028	CD 330PF +-10% 50V
⚠C717	0299939	PP 0.012MF 1600V
⚠C718	0299668	PP 3600PF +-5% 1600V
⚠C719	0299931	PP 0.27MF +-10% 200V
⚠C721	0299920	PP 0.033MF +-10% 200V
C722	0259471	EL 6.8MF 25V
⚠C723	0249458	CD 180 PF +-10% DC2.5KV
C724	0259153	EL 220MF 160V
C727	0244504	CD 1800PF +-10% 500V
C729	0253483	EL 33MF 350V
C731	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
⚠C732	0299636	PP 0.068MF +-5% 1600V
C738	0243510	CD 560PF +-10% 500V
C739	0890087	CD 1000PF +-10% 50V
C740	0252417	EL 1MF 50V
C743	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C744	0880048	PF 0.022MF +-10% 50V
C745	0880057	PF 0.1MF +-10% 50V
⚠C747	0299932	PP 0.33MF +-10% 200V
C748	0247850	CD 68PF +-5% 500V
C750	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C751	0244507	CD 3300PF +-10% 500V
C755	0244109	CD 4700PF +-10% 50V
C757	0251089	EL 4.7MF 25V
C759	0800007	CAPACITOR,ELECTROLYTIC 3.3MF 50V
C760	0243503	CD 150PF +-10% 500V
C763	0890089	CD 1500PF +-10% 50V
C781	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C782	0244120	CD 820PF +-10% 50V
C801G	0257543	EL 3.3MF 315V
C804B	0243425	CD 100PF +-10% 1.6KV
C804G	0243425	CD 100PF +-10% 1.6KV
C804R	0243425	CD 100PF +-10% 1.6KV
C805B	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C805G	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C805R	0800049	CAPACITOR,ELECTROLYTIC 100MF 16V
C807B	0244105	CD 2200PF +-10% 50V
C807G	0244105	CD 2200PF +-10% 50V
C807R	0244105	CD 2200PF +-10% 50V
C808B	0244120	CD 820PF +-10% 50V
C808G	0244120	CD 820PF +-10% 50V
C808R	0244115	CD 560PF +-10% 50V
C809R	0244227	CD 100PF +-10% 50V
C901	0800075	CAPACITOR ELECTROLYTIC 470MF 25V
⚠C902	0279718	PF 0.1MF +-10% 125V
⚠C903	0279718	PF 0.1MF +-10% 125V
⚠C906	0248593F	CD 4700PF +80-20% 250V
⚠C907	0248593F	CD 4700PF +80-20% 250V
⚠C908	0248593F	CD 4700PF +80-20% 250V
⚠C909	0248593F	CD 4700PF +80-20% 250V
⚠C910	0259167	EL 820MF 200V
⚠C911	0244501	CD 1000PF +-10% 500V
C912	0244501	CD 1000PF +-10% 500V
C913	0299929	PP 0.18MF +-10% 200V
C914	0243503	CD 150PF +-10% 500V
C915	0890087	CD 1000PF +-10% 50V
C916	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C917	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C918	0880018	PF 0.22MF +-10% 50V
C921	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C923	0800009	CAPACITOR ELECTROLYTIC 4.7MF 25V
C924	0276223	PF 3300PF +-5% 50V
C926	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
⚠C927	0249487	CD 3300PF +-20%
C928	0243511	CD 680PF +-10% 500V
C929	0258178G	EL 470MF,63V
C933	0299969	PP 1000PF +-5% 630V
C934	0299969	PP 1000PF +-5% 630V
C935	0258697	EL 470MF 160V
C936	0253460	EL 100MF 160V
C937	0244105	CD 2200PF +-10% 50V
C938	0880009	PF 0.01MF +-10% 50V
C939	0800018	CAPACITOR ELECTROLYTIC 10MF 50V
C940	0800005	CAPACITOR,ELECTROLYTIC 2.2MF 50V
C941	0890067	CD 33PF +-5% 50V
C942	0880018	PF 0.22MF +-10% 50V
C943	0253943	EL 0.33MF 50V
C946	0247854	CD 100PF +-5% 500V
⚠C951	0259167	EL 820MF 200V
C952	0258178G	EL 470MF,63V
C953	0243511	CD 680PF +-10% 500V
C954	0880018	PF 0.22MF +-10% 50V
C955	0243503	CD 150PF +-10% 500V
C956	0243503	CD 150PF +-10% 500V
C957	0258178G	EL 470MF,63V
C958	0258175	EL 470MF 31.5V
C959	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C960	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C961	0800041	CAPACITOR ELECTROLYTIC 47MF 16V
C962	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C963	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C964	0800023	CAPACITOR ELECTROLYTIC 22MF 16V
C965	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C966	0800044	CAPACITOR ELECTROLYTIC 47MF 50V
C967	0800003	CAPACITOR ELECTROLYTIC 1MF 50V
C971	0880018	PF 0.22MF +-10% 50V
C972	0800032	CAPACITOR-ELECTROLYTIC 33MF 16V
C973	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C974	0800042	CAPACITOR ELECTROLYTIC 47MF 25V
C976	0258179G	EL 1000MF,6
C977	0243503	CD 150PF +-10% 500V
C980	0247850	CD 68PF +-5% 500V
C983	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C984	0800053	CAPACITOR ELECTROLYTIC 100MF 50V
C985	0258178G	EL 470MF,63V
C986	0880018	PF 0.22MF +-10% 50V
C987	0258175	EL 470MF 31.5V
C988	0244115F	CD 560PF +-10% 50V
C989	0880018	PF 0.22MF +-10% 50V

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
C990	0880018	PF 0.22MF +-10% 50V	R0055	0700041	CF 1K OHM +-5% 1/16W
C991	0880018	PF 0.22MF +-10% 50V	R0056	0700064	CF 56K OHM +-5% 1/16W
C992	0880018	PF 0.22MF +-10% 50V	R0057	0700043	CF 1.5K OHM +-5% 1/16W
			R0058	0700049	CF 4.7K OHM +-5% 1/16W
		RESISTORS	R0059	0700045	CF 2.2K OHM +-5% 1/16W
			R0060	0700058	CF 22K OHM +-5% 1/16W
R0001	0700041	CF 1K OHM +-5% 1/16W	R0061	0700058	CF 22K OHM +-5% 1/16W
R0002	0700058	CF 22K OHM +-5% 1/16W	R0062	0700061	CF 33K OHM +-5% 1/16W
R0003	0700058	CF 22K OHM +-5% 1/16W	R0063	0700027	CF 100 OHM +-5% 1/16W
R0004	0700041	CF 1K OHM +-5% 1/16W	R0065	0700067	CF 100K OHM +-5% 1/16W
R0005	0700041	CF 1K OHM +-5% 1/16W	R0066	0700058	CF 22K OHM +-5% 1/16W
R0006	0700041	CF 1K OHM +-5% 1/16W	R0067	0700049	CF 4.7K OHM +-5% 1/16W
R0007	0700041	CF 1K OHM +-5% 1/16W	R0068	0700031	CF 180 OHM +-5% 1/16W
R0008	0700054	CF 10K OHM +-5% 1/16W	R0069	0700047	CF 3.3K OHM +-5% 1/16W
R0009	0700048	CF 3.9K OHM +-5% 1/16W	R0070	0700066	CF 82K OHM +-5% 1/16W
R0012	0700061	CF 33K OHM +-5% 1/16W	R0071	0700066	CF 82K OHM +-5% 1/16W
R0013	0700054	CF 10K OHM +-5% 1/16W	R0072	0700054	CF 10K OHM +-5% 1/16W
R0014	0700048	CF 3.9K OHM +-5% 1/16W	R0073	0700054	CF 10K OHM +-5% 1/16W
R0015	0700054	CF 10K OHM +-5% 1/16W	R0074	0700041	CF 1K OHM +-5% 1/16W
R0016	0700058	CF 22K OHM +-5% 1/16W	R0075	0700041	CF 1K OHM +-5% 1/16W
R0017	0700051	CF 5.6K OHM +-5% 1/16W	R0076	0700041	CF 1K OHM +-5% 1/16W
R0018	0700058	CF 22K OHM +-5% 1/16W	R0077	0700041	CF 1K OHM +-5% 1/16W
R0019	0700041	CF 1K OHM +-5% 1/16W	R0078	0700067	CF 100K OHM +-5% 1/16W
R0020	0700054	CF 10K OHM +-5% 1/16W	R0079	0700041	CF 1K OHM +-5% 1/16W
R0021	0700041	CF 1K OHM +-5% 1/16W	R0080	0700041	CF 1K OHM +-5% 1/16W
R0022	0700058	CF 22K OHM +-5% 1/16W	R0081	0700041	CF 1K OHM +-5% 1/16W
R0023	0700041	CF 1K OHM +-5% 1/16W	R0082	0700041	CF 1K OHM +-5% 1/16W
R0024	0700041	CF 1K OHM +-5% 1/16W	R0083	0700041	CF 1K OHM +-5% 1/16W
R0025	0700041	CF 1K OHM +-5% 1/16W	R0084	0700052	CF 6.8K OHM +-5% 1/16W
R0026	0700041	CF 1K OHM +-5% 1/16W	R0085	0700041	CF 1K OHM +-5% 1/16W
R0027	0700058	CF 22K OHM +-5% 1/16W	R0086	0700041	CF 1K OHM +-5% 1/16W
R0028	0700058	CF 22K OHM +-5% 1/16W	R0087	0700052	CF 6.8K OHM +-5% 1/16W
R0029	0700058	CF 22K OHM +-5% 1/16W	R0088	0700041	CF 1K OHM +-5% 1/16W
R0030	0700058	CF 22K OHM +-5% 1/16W	R0089	0700041	CF 1K OHM +-5% 1/16W
R0031	0700041	CF 1K OHM +-5% 1/16W	R0094	0700045	CF 2.2K OHM +-5% 1/16W
R0032	0700041	CF 1K OHM +-5% 1/16W	R0095	0700052	CF 6.8K OHM +-5% 1/16W
R0033	0700041	CF 1K OHM +-5% 1/16W	R0096	0700056	CF 15K OHM +-5% 1/16W
R0034	0700041	CF 1K OHM +-5% 1/16W	R0097	0700054	CF 10K OHM +-5% 1/16W
R0036	0700045	CF 2.2K OHM +-5% 1/16W	R0098	0700036	CF 470 OHM +-5% 1/16W
R0037	0700058	CF 22K OHM +-5% 1/16W	R0099	0700046	CF 2.7K OHM +-5% 1/16W
R0040	0700056	CF 15K OHM +-5% 1/16W	R0100	0700041	CF 1K OHM +-5% 1/16W
R0041	0700048	CF 3.9K OHM +-5% 1/16W	R0101	0700041	CF 1K OHM +-5% 1/16W
R0042	0700054	CF 10K OHM +-5% 1/16W	R0102	0700041	CF 1K OHM +-5% 1/16W
R0043	0700056	CF 15K OHM +-5% 1/16W	R0103	0700056	CF 15K OHM +-5% 1/16W
R0044	0700064	CF 56K OHM +-5% 1/16W	R0104	0700041	CF 1K OHM +-5% 1/16W
R0045	0700067	CF 100K OHM +-5% 1/16W	R0105	0700041	CF 1K OHM +-5% 1/16W
R0046	0700063	CF 47K OHM +-5% 1/16W	R0106	0700056	CF 15K OHM +-5% 1/16W
R0047	0700041	CF 1K OHM +-5% 1/16W	R0107	0700041	CF 1K OHM +-5% 1/16W
R0048	0700063	CF 47K OHM +-5% 1/16W	R0108	0700041	CF 1K OHM +-5% 1/16W
R0049	0700041	CF 1K OHM +-5% 1/16W	R0109	0700058	CF 22K OHM +-5% 1/16W
R0050	0700063	CF 47K OHM +-5% 1/16W	R0110	0700041	CF 1K OHM +-5% 1/16W
R0051	0700041	CF 1K OHM +-5% 1/16W	R0111	0700058	CF 22K OHM +-5% 1/16W
R0052	0700041	CF 1K OHM +-5% 1/16W	R0112	0700039	CF 820 OHM +-5% 1/16W
R0053	0700041	CF 1K OHM +-5% 1/16W	R0113	0700052	CF 6.8K OHM +-5% 1/16W
R0054	0700041	CF 1K OHM +-5% 1/16W	R0114	0700039	CF 820 OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION
R0115	0700052	CF 6.8K OHM +-5% 1/16W
R0116	0700039	CF 820 OHM +-5% 1/16W
R0117	0700052	CF 6.8K OHM +-5% 1/16W
R0118	0114169	CF 2.2K OHM +-5% 1/4W
R0119	0700027	CF 100 OHM +-5% 1/16W
R0120	0114161	CF 1K OHM +-5% 1/4W
R0121	0700027	CF 100 OHM +-5% 1/16W
R0122	0114161	CF 1K OHM +-5% 1/4W
R0123	0700027	CF 100 OHM +-5% 1/16W
R0124	0700041	CF 1K OHM +-5% 1/16W
R0125	0700067	CF 100K OHM +-5% 1/16W
R0126	0700054	CF 10K OHM +-5% 1/16W
R0127	0700046	CF 2.7K OHM +-5% 1/16W
R0128	0700054	CF 10K OHM +-5% 1/16W
R0129	0700041	CF 1K OHM +-5% 1/16W
R0130	0700067	CF 100K OHM +-5% 1/16W
R0131	0700054	CF 10K OHM +-5% 1/16W
R0132	0700046	CF 2.7K OHM +-5% 1/16W
R0133	0700054	CF 10K OHM +-5% 1/16W
R0135	0700052	CF 6.8K OHM +-5% 1/16W
R0136	0700052	CF 6.8K OHM +-5% 1/16W
R0137	0113703	CF 12 OHM +-5% 1/2W
R0138	0700036	CF 470 OHM +-5% 1/16W
⚠R0139	0119687	FR 4.7 OHM +-5% 1/4W
R0140	0700041	CF 1K OHM +-5% 1/16W
R0141	0700041	CF 1K OHM +-5% 1/16W
R0142	0700041	CF 1K OHM +-5% 1/16W
R0143	0700063	CF 47K OHM +-5% 1/16W
R0144	0700041	CF 1K OHM +-5% 1/16W
R0145	0700048	CF 3.9K OHM +-5% 1/16W
⚠R0146	0150137	VR 10K OHM-B
R0147	0100127	CF 390K OHM +-5% 1/8W
R0148	0100119	CF 180K OHM +-5% 1/8W
R0149	0100121	CF 220K OHM +-5% 1/8W
R0150	0700041	CF 1K OHM +-5% 1/16W
R0151	0700058	CF 22K OHM +-5% 1/16W
R0152	0700062	CF 39K OHM +-5% 1/16W
R0154	0700041	CF 1K OHM +-5% 1/16W
R0155	0700041	CF 1K OHM +-5% 1/16W
R0156	0700041	CF 1K OHM +-5% 1/16W
R0157	0700048	CF 3.9K OHM +-5% 1/16W
R0158	0700054	CF 10K OHM +-5% 1/16W
R0159	0700041	CF 1K OHM +-5% 1/16W
R0160	0700041	CF 1K OHM +-5% 1/16W
R0161	0700041	CF 1K OHM +-5% 1/16W
R0163	0700041	CF 1K OHM +-5% 1/16W
R0165	0114161	CF 1K OHM +-5% 1/4W
R0166	0700058	CF 22K OHM +-5% 1/16W
R0167	0700051	CF 5.6K OHM +-5% 1/16W
R0168	0700057	CF 18K OHM +-5% 1/16W
R0169	0700054	CF 10K OHM +-5% 1/16W
R0170	0700054	CF 10K OHM +-5% 1/16W
R0171	0700054	CF 10K OHM +-5% 1/16W
R0172	0700061	CF 33K OHM +-5% 1/16W
R0173	0700041	CF 1K OHM +-5% 1/16W
R0174	0700041	CF 1K OHM +-5% 1/16W
R0177	0700058	CF 22K OHM +-5% 1/16W
R0184	0700041	CF 1K OHM +-5% 1/16W
R0185	0700037	CF 560 OHM +-5% 1/16W
R0186	0700042	CF 1.2K OHM +-5% 1/16W
R0187	0700041	CF 1K OHM +-5% 1/16W
R0188	0700041	CF 1K OHM +-5% 1/16W
R0189	0700041	CF 1K OHM +-5% 1/16W
R0190	0700041	CF 1K OHM +-5% 1/16W
R0191	0700041	CF 1K OHM +-5% 1/16W
R0192	0700058	CF 22K OHM +-5% 1/16W
R0194	0700058	CF 22K OHM +-5% 1/16W
R0195	0700058	CF 22K OHM +-5% 1/16W
R0196	0100065	CF 1K OHM +-5% 1/8W
R0197	0700058	CF 22K OHM +-5% 1/16W
R0198	0700058	CF 22K OHM +-5% 1/16W
R0199	0700058	CF 22K OHM +-5% 1/16W
R0200	0700058	CF 22K OHM +-5% 1/16W
R0204	0700041	CF 1K OHM +-5% 1/16W
R0205	0700041	CF 1K OHM +-5% 1/16W
R0206	0700041	CF 1K OHM +-5% 1/16W
R0208	0700055	CF 12K OHM +-5% 1/16W
R0209	0700058	CF 22K OHM +-5% 1/16W
R0210	0700051	CF 5.6K OHM +-5% 1/16W
R0211	0700052	CF 6.8K OHM +-5% 1/16W
R0212	0700067	CF 100K OHM +-5% 1/16W
R0213	0700041	CF 1K OHM +-5% 1/16W
R0214	0700057	CF 18K OHM +-5% 1/16W
R0215	0700041	CF 1K OHM +-5% 1/16W
R0216	0700043	CF 1.5K OHM +-5% 1/16W
R0217	0700058	CF 22K OHM +-5% 1/16W
R0218	0700027	CF 100 OHM +-5% 1/16W
R0219	0700041	CF 1K OHM +-5% 1/16W
R0220	0700058	CF 22K OHM +-5% 1/16W
R0221	0700058	CF 22K OHM +-5% 1/16W
R0222	0700058	CF 22K OHM +-5% 1/16W
R0224	0700051	CF 5.6K OHM +-5% 1/16W
R0225	0700059	CF 27K OHM +-5% 1/16W
R0226	0700067	CF 100K OHM +-5% 1/16W
R0229	0700046	CF 2.7K OHM +-5% 1/16W
R0230	0700041	CF 1K OHM +-5% 1/16W
R0231	0700041	CF 1K OHM +-5% 1/16W
R1101	0700054	CF 10K OHM +-5% 1/16W
R1102	0700054	CF 10K OHM +-5% 1/16W
R1103	0700045	CF 2.2K OHM +-5% 1/16W
R1104	0700041	CF 1K OHM +-5% 1/16W
R1226	0700055	CF 12K OHM +-5% 1/16W
⚠R1227	0150136	VR 5K OHM-B
R1228	0700055	CF 12K OHM +-5% 1/16W
R1229	0700058	CF 22K OHM +-5% 1/16W
R1230	0113684	CF 2.2 OHM +-5% 1/2W
R1231	0113774	CF 10K OHM +-5% 1/2W
R1232	0113701	CF 10 OHM +-5% 1/2W
R1233	0100081	CF 4.7K OHM +-5% 1/8W
R1234	0700056	CF 15K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION
R1235	0700056	CF 15K OHM +-5% 1/16W
R1276	0700053	CF 8.2K OHM +-5% 1/16W
R1277	0700053	CF 8.2K OHM +-5% 1/16W
R1278	0700066	CF 82K OHM +-5% 1/16W
R1279	0700054	CF 10K OHM +-5% 1/16W
R1280	0700037	CF 560 OHM +-5% 1/16W
R1281	0700049	CF 4.7K OHM +-5% 1/16W
R1282	0700054	CF 10K OHM +-5% 1/16W
R1283	0700041	CF 1K OHM +-5% 1/16W
R1284	0700054	CF 10K OHM +-5% 1/16W
R1285	0700054	CF 10K OHM +-5% 1/16W
R1286	0700049	CF 4.7K OHM +-5% 1/16W
R1291	0110359	MF 3.9K OHM +-5% 3W
R1293	0119722	MF 1 OHM +-5% 1W
R1301	0700063	CF 47K OHM +-5% 1/16W
R1302	0110229	MF 220 OHM +-5% 2W
R1303	0113696	CF 6.8 OHM +-5% 1/2W
R1304	0113696	CF 6.8 OHM +-5% 1/2W
R1306	0100077	CF 3.3K OHM +-5% 1/8W
R1308	0700063	CF 47K OHM +-5% 1/16W
R1309	0700056	CF 15K OHM +-5% 1/16W
R1311	0700063	CF 47K OHM +-5% 1/16W
R1312	0110225	MF 150 OHM +-5% 2W
R1313	0113692	CF 4.7 OHM +-5% 1/2W
R1314	0113692	CF 4.7 OHM +-5% 1/2W
R1316	0100077	CF 3.3K OHM +-5% 1/8W
R1318	0700063	CF 47K OHM +-5% 1/16W
R1319	0700058	CF 22K OHM +-5% 1/16W
R1326	0700063	CF 47K OHM +-5% 1/16W
R1327	0110225	MF 150 OHM +-5% 2W
R1328	0113696	CF 6.8 OHM +-5% 1/2W
R1329	0113696	CF 6.8 OHM +-5% 1/2W
R1331	0100077	CF 3.3K OHM +-5% 1/8W
R1336	0700063	CF 47K OHM +-5% 1/16W
R1337	0110233	MF 330 OHM +-5% 2W
R1338	0113692	CF 4.7 OHM +-5% 1/2W
R1339	0113692	CF 4.7 OHM +-5% 1/2W
R1341	0100077	CF 3.3K OHM +-5% 1/8W
R1351	0700063	CF 47K OHM +-5% 1/16W
R1352	0110229	MF 220 OHM +-5% 2W
R1353	0113696	CF 6.8 OHM +-5% 1/2W
R1354	0113696	CF 6.8 OHM +-5% 1/2W
R1356	0100077	CF 3.3K OHM +-5% 1/8W
R1358	0700063	CF 47K OHM +-5% 1/16W
R1359	0700056	CF 15K OHM +-5% 1/16W
R1361	0700063	CF 47K OHM +-5% 1/16W
R1362	0110225	MF 150 OHM +-5% 2W
R1363	0113692	CF 4.7 OHM +-5% 1/2W
R1364	0113692	CF 4.7 OHM +-5% 1/2W
R1366	0100077	CF 3.3K OHM +-5% 1/8W
R1368	0700063	CF 47K OHM +-5% 1/16W
R1369	0700058	CF 22K OHM +-5% 1/16W
R1370	0700032	CF 220 OHM +-5% 1/16W
R1371	0700032	CF 220 OHM +-5% 1/16W
R1372	0700032	CF 220 OHM +-5% 1/16W
R1373	0700032	CF 220 OHM +-5% 1/16W
R1374	0700032	CF 220 OHM +-5% 1/16W
R1375	0700032	CF 220 OHM +-5% 1/16W
R1376	0700032	CF 220 OHM +-5% 1/16W
R1377	0700032	CF 220 OHM +-5% 1/16W
R1378	0700032	CF 220 OHM +-5% 1/16W
R1379	0700032	CF 220 OHM +-5% 1/16W
R1390	0700044	CF 1.8K OHM +-5% 1/16W
R1401	0700045	CF 2.2K OHM +-5% 1/16W
R1402	0700041	CF 1K OHM +-5% 1/16W
R1403	0700041	CF 1K OHM +-5% 1/16W
R1404	0700037	CF 560 OHM +-5% 1/16W
R1410	0700067	CF 100K OHM +-5% 1/16W
R1411	0700067	CF 100K OHM +-5% 1/16W
R1412	0187038	CF 75 OHM +-5% 1/16W
R1413	0187038	CF 75 OHM +-5% 1/16W
R1414	0187038	CF 75 OHM +-5% 1/16W
R1415	0159922	VR 5K OHM-B
R1416	0700032	CF 220 OHM +-5% 1/16W
R1432	0159921	VR 20K OHM-B RV-9
R2001	0700061	CF 33K OHM +-5% 1/16W
R2002	0700051	CF 5.6K OHM +-5% 1/16W
R2003	0700058	CF 22K OHM +-5% 1/16W
R2004	0700051	CF 5.6K OHM +-5% 1/16W
R2005	0700054	CF 10K OHM +-5% 1/16W
R2006	0114131	CF 100 OHM +-5% 1/4W
R2007	0700054	CF 10K OHM +-5% 1/16W
R2008	0700054	CF 10K OHM +-5% 1/16W
R2009	0700045	CF 2.2K OHM +-5% 1/16W
R2010	0700034	CF 330 OHM +-5% 1/16W
R2011	0700051	CF 5.6K OHM +-5% 1/16W
R2012	0700058	CF 22K OHM +-5% 1/16W
R2013	0700064	CF 56K OHM +-5% 1/16W
R2014	0700036	CF 470 OHM +-5% 1/16W
R2015	0700041	CF 1K OHM +-5% 1/16W
R2016	0700041	CF 1K OHM +-5% 1/16W
R2017	0700041	CF 1K OHM +-5% 1/16W
R2018	0700058	CF 22K OHM +-5% 1/16W
R2019	0700051	CF 5.6K OHM +-5% 1/16W
R2020	0150115	VR 20K OHM-B
R2021	0700058	CF 22K OHM +-5% 1/16W
R2022	0700051	CF 5.6K OHM +-5% 1/16W
R2023	0700058	CF 22K OHM +-5% 1/16W
R2024	0700064	CF 56K OHM +-5% 1/16W
R2025	0700041	CF 1K OHM +-5% 1/16W
R2026	0700041	CF 1K OHM +-5% 1/16W
R2027	0700045	CF 2.2K OHM +-5% 1/16W
R2028	0700034	CF 330 OHM +-5% 1/16W
R2029	0700041	CF 1K OHM +-5% 1/16W
R2030	0700058	CF 22K OHM +-5% 1/16W
R2031	0700041	CF 1K OHM +-5% 1/16W
R2032	0700045	CF 2.2K OHM +-5% 1/16W
R2033	0700041	CF 1K OHM +-5% 1/16W
R2034	0700043	CF 1.5K OHM +-5% 1/16W
R2035	0700048	CF 3.9K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION
R2036	0700045	CF 2.2K OHM +-5% 1/16W
R2037	0700048	CF 3.9K OHM +-5% 1/16W
R2101	0150136	VR 5K OHM-B
R2102	0150136	VR 5K OHM-B
R2103	0150136	VR 5K OHM-B
R2104	0150136	VR 5K OHM-B
R2105	0150136	VR 5K OHM-B
R2106	0150136	VR 5K OHM-B
R2107	0150136	VR 5K OHM-B
R2108	0150136	VR 5K OHM-B
R2109	0150136	VR 5K OHM-B
R2110	0150136	VR 5K OHM-B
R2111	0150136	VR 5K OHM-B
R2112	0150136	VR 5K OHM-B
R2113	0150136	VR 5K OHM-B
R2114	0150136	VR 5K OHM-B
R2115	0150136	VR 5K OHM-B
R2116	0150136	VR 5K OHM-B
R2117	0150136	VR 5K OHM-B
R2118	0150136	VR 5K OHM-B
R2119	0150136	VR 5K OHM-B
R2120	0150136	VR 5K OHM-B
R2121	0150136	VR 5K OHM-B
R2122	0150136	VR 5K OHM-B
R2123	0150136	VR 5K OHM-B
R2124	0150136	VR 5K OHM-B
R2125	0150136	VR 5K OHM-B
R2126	0150136	VR 5K OHM-B
R2127	0150136	VR 5K OHM-B
R2128	0150136	VR 5K OHM-B
R2129	0150136	VR 5K OHM-B
R2130	0150136	VR 5K OHM-B
R2131	0150136	VR 5K OHM-B
R2132	0150136	VR 5K OHM-B
R2133	0150136	VR 5K OHM-B
R2134	0150136	VR 5K OHM-B
R2135	0150136	VR 5K OHM-B
R2136	0150136	VR 5K OHM-B
R2137	0150136	VR 5K OHM-B
R2138	0150136	VR 5K OHM-B
R2139	0150136	VR 5K OHM-B
R2140	0150136	VR 5K OHM-B
R2141	0150136	VR 5K OHM-B
R2142	0150136	VR 5K OHM-B
R2151	0700048	CF 3.9K OHM +-5% 1/16W
R2152	0700044	CF 1.8K OHM +-5% 1/16W
R2154	0187092	CF 13K OHM +-5% 1/16W
R2155	0700049	CF 4.7K OHM +-5% 1/16W
R2156	0700047	CF 3.3K OHM +-5% 1/16W
R2157	0700052	CF 6.8K OHM +-5% 1/16W
R2158	0700054	CF 10K OHM +-5% 1/16W
R2162	0700054	CF 10K OHM +-5% 1/16W
R2163	0100121	CF 220K OHM +-5% 1/8W
R2164	0114161	CF 1K OHM +-5% 1/4W
R2165	0100087	CF 8.2K OHM +-5% 1/8W
R2166	0187072	CF 2K OHM +-5% 1/16W
R2167	0700049	CF 4.7K OHM +-5% 1/16W
R2168	0187068	CF 1.3K OHM +-5% 1/16W
R2169	0187080	CF 4.3K OHM +-5% 1/16W
R2170	0700055	CF 12K OHM +-5% 1/16W
R2171	0700047	CF 3.3K OHM +-5% 1/16W
R2172	0700047	CF 3.3K OHM +-5% 1/16W
R2174	0700043	CF 1.5K OHM +-5% 1/16W
R2175	0700042	CF 1.2K OHM +-5% 1/16W
R2182	0700051	CF 5.6K OHM +-5% 1/16W
R2183	0150134	VR 1K OHM-B
R2185	0150138	VR 20K OHM-B
R2186	0150138	VR 20K OHM-B
R2189	0700063	CF 47K OHM +-5% 1/16W
R2190	0700057	CF 18K OHM +-5% 1/16W
R2193	0150136	VR 5K OHM-B
R2194	0150136	VR 5K OHM-B
R2195	0150136	VR 5K OHM-B
R2196	0150136	VR 5K OHM-B
R2197	0700066	CF 82K OHM +-5% 1/16W
R2199	0187104	CF 43K OHM +-5% 1/16W
R2200	0700054	CF 10K OHM +-5% 1/16W
R2201	0187088	CF 9.1K OHM +-5% 1/16W
R2205	0700067	CF 100K OHM +-5% 1/16W
R2206	0187098	CF 24K OHM +-5% 1/16W
R2208	0700049	CF 4.7K OHM +-5% 1/16W
R2209	0700049	CF 4.7K OHM +-5% 1/16W
R2210	0700047	CF 3.3K OHM +-5% 1/16W
R2211	0700054	CF 10K OHM +-5% 1/16W
R2212	0700045	CF 2.2K OHM +-5% 1/16W
R2213	0700046	CF 2.7K OHM +-5% 1/16W
R2217	0700049	CF 4.7K OHM +-5% 1/16W
R2218	0700045	CF 2.2K OHM +-5% 1/16W
R2219	0700067	CF 100K OHM +-5% 1/16W
R2220	0114161	CF 1K OHM +-5% 1/4W
R2221	0700049	CF 4.7K OHM +-5% 1/16W
R2222	0700052	CF 6.8K OHM +-5% 1/16W
R2223	0700048	CF 3.9K OHM +-5% 1/16W
R2224	0700048	CF 3.9K OHM +-5% 1/16W
R2225	0187086	CF 7.5K OHM +-5% 1/16W
R2226	0700048	CF 3.9K OHM +-5% 1/16W
R2227	0700051	CF 5.6K OHM +-5% 1/16W
R2228	0700045	CF 2.2K OHM +-5% 1/16W
R2229	0700045	CF 2.2K OHM +-5% 1/16W
R2230	0700053	CF 8.2K OHM +-5% 1/16W
R2231	0700046	CF 2.7K OHM +-5% 1/16W
R2232	0700054	CF 10K OHM +-5% 1/16W
R2233	0700042	CF 1.2K OHM +-5% 1/16W
R2234	0700051	CF 5.6K OHM +-5% 1/16W
R2235	0700054	CF 10K OHM +-5% 1/16W
R2236	0700049	CF 4.7K OHM +-5% 1/16W
R2237	0700045	CF 2.2K OHM +-5% 1/16W
R2238	0700066	CF 82K OHM +-5% 1/16W
R2239	0700048	CF 3.9K OHM +-5% 1/16W
R2240	0700054	CF 10K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R2241	0700053	CF 8.2K OHM +-5% 1/16W	R2300	0700051	CF 5.6K OHM +-5% 1/16W
R2242	0700063	CF 47K OHM +-5% 1/16W	R2301	0700042	CF 1.2K OHM +-5% 1/16W
R2243	0700041	CF 1K OHM +-5% 1/16W	R2302	0700046	CF 2.7K OHM +-5% 1/16W
R2244	0700047	CF 3.3K OHM +-5% 1/16W	R2303	0700052	CF 6.8K OHM +-5% 1/16W
R2245	0700051	CF 5.6K OHM +-5% 1/16W	R2304	0700045	CF 2.2K OHM +-5% 1/16W
R2246	0700046	CF 2.7K OHM +-5% 1/16W	R2305	0700048	CF 3.9K OHM +-5% 1/16W
R2247	0700063	CF 47K OHM +-5% 1/16W	R2306	0700049	CF 4.7K OHM +-5% 1/16W
R2250	0700067	CF 100K OHM +-5% 1/16W	R2307	0700067	CF 100K OHM +-5% 1/16W
R2251	0700058	CF 22K OHM +-5% 1/16W	R2308	0700049	CF 4.7K OHM +-5% 1/16W
R2252	0700061	CF 33K OHM +-5% 1/16W	R2309	0700041	CF 1K OHM +-5% 1/16W
R2253	0700042	CF 1.2K OHM +-5% 1/16W	R2310	0700052	CF 6.8K OHM +-5% 1/16W
R2254	0700049	CF 4.7K OHM +-5% 1/16W	R2311	0700058	CF 22K OHM +-5% 1/16W
R2255	0700051	CF 5.6K OHM +-5% 1/16W	R2312	0700061	CF 33K OHM +-5% 1/16W
R2256	0700042	CF 1.2K OHM +-5% 1/16W	R2313	0700046	CF 2.7K OHM +-5% 1/16W
R2257	0700046	CF 2.7K OHM +-5% 1/16W	R2314	0700054	CF 10K OHM +-5% 1/16W
R2258	0700052	CF 6.8K OHM +-5% 1/16W	R2315	0700054	CF 10K OHM +-5% 1/16W
R2259	0700045	CF 2.2K OHM +-5% 1/16W	R2316	0700047	CF 3.3K OHM +-5% 1/16W
R2260	0700046	CF 2.7K OHM +-5% 1/16W	R2317	0700047	CF 3.3K OHM +-5% 1/16W
R2261	0700052	CF 6.8K OHM +-5% 1/16W	R2318	0700049	CF 4.7K OHM +-5% 1/16W
R2262	0700047	CF 3.3K OHM +-5% 1/16W	R2319	0700053	CF 8.2K OHM +-5% 1/16W
R2263	0700054	CF 10K OHM +-5% 1/16W	R2320	0700058	CF 22K OHM +-5% 1/16W
R2264	0700047	CF 3.3K OHM +-5% 1/16W	R2321	0700062	CF 39K OHM +-5% 1/16W
R2265	0700058	CF 22K OHM +-5% 1/16W	R2322	0700067	CF 100K OHM +-5% 1/16W
R2266	0700046	CF 2.7K OHM +-5% 1/16W	R2323	0700063	CF 47K OHM +-5% 1/16W
R2267	0700054	CF 10K OHM +-5% 1/16W	R2324	0700041	CF 1K OHM +-5% 1/16W
R2268	0700054	CF 10K OHM +-5% 1/16W	R2325	0700052	CF 6.8K OHM +-5% 1/16W
R2269	0700054	CF 10K OHM +-5% 1/16W	R2326	0700045	CF 2.2K OHM +-5% 1/16W
R2270	0700047	CF 3.3K OHM +-5% 1/16W	R2327	0700051	CF 5.6K OHM +-5% 1/16W
R2271	0700048	CF 3.9K OHM +-5% 1/16W	R2328	0700049	CF 4.7K OHM +-5% 1/16W
R2272	0700063	CF 47K OHM +-5% 1/16W	R2329	0700046	CF 2.7K OHM +-5% 1/16W
R2273	0700067	CF 100K OHM +-5% 1/16W	R2330	0700042	CF 1.2K OHM +-5% 1/16W
R2274	0700062	CF 39K OHM +-5% 1/16W	R2331	0700047	CF 3.3K OHM +-5% 1/16W
R2275	0700048	CF 3.9K OHM +-5% 1/16W	R2332	0700053	CF 8.2K OHM +-5% 1/16W
R2276	0700051	CF 5.6K OHM +-5% 1/16W	R2333	0700045	CF 2.2K OHM +-5% 1/16W
R2277	0700052	CF 6.8K OHM +-5% 1/16W	R2334	0700049	CF 4.7K OHM +-5% 1/16W
R2278	0700047	CF 3.3K OHM +-5% 1/16W	R2335	0700049	CF 4.7K OHM +-5% 1/16W
R2279	0700041	CF 1K OHM +-5% 1/16W	R2336	0700063	CF 47K OHM +-5% 1/16W
R2280	0700052	CF 6.8K OHM +-5% 1/16W	R2337	0187086	CF 7.5K OHM +-5% 1/16W
R2281	0700054	CF 10K OHM +-5% 1/16W	R2338	0700053	CF 8.2K OHM +-5% 1/16W
R2282	0700049	CF 4.7K OHM +-5% 1/16W	R2339	0700054	CF 10K OHM +-5% 1/16W
R2283	0700046	CF 2.7K OHM +-5% 1/16W	R2340	0700049	CF 4.7K OHM +-5% 1/16W
R2284	0700054	CF 10K OHM +-5% 1/16W	R2341	0700052	CF 6.8K OHM +-5% 1/16W
R2285	0700045	CF 2.2K OHM +-5% 1/16W	R2342	0700032	CF 220 OHM +-5% 1/16W
R2286	0700052	CF 6.8K OHM +-5% 1/16W	R2343	0700032	CF 220 OHM +-5% 1/16W
R2287	0700066	CF 82K OHM +-5% 1/16W	R2344	0700032	CF 220 OHM +-5% 1/16W
R2288	0700045	CF 2.2K OHM +-5% 1/16W	R2345	0700032	CF 220 OHM +-5% 1/16W
R2289	0700049	CF 4.7K OHM +-5% 1/16W	R2346	0700032	CF 220 OHM +-5% 1/16W
R2290	0700054	CF 10K OHM +-5% 1/16W	R2347	0700032	CF 220 OHM +-5% 1/16W
R2291	0700027	CF 100 OHM +-5% 1/16W	R2348	0700067	CF 100K OHM +-5% 1/16W
R2292	0700047	CF 3.3K OHM +-5% 1/16W	R2349	0700051	CF 5.6K OHM +-5% 1/16W
R2293	0700046	CF 2.7K OHM +-5% 1/16W	R2350	0700054	CF 10K OHM +-5% 1/16W
R2294	0700049	CF 4.7K OHM +-5% 1/16W	R2352	0700048	CF 3.9K OHM +-5% 1/16W
R2295	0700063	CF 47K OHM +-5% 1/16W	R2353	0700049	CF 4.7K OHM +-5% 1/16W
R2298	0700042	CF 1.2K OHM +-5% 1/16W	R2355	0700053	CF 8.2K OHM +-5% 1/16W
R2299	0700049	CF 4.7K OHM +-5% 1/16W	R2356	0700041	CF 1K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION
R2358	0700041	CF 1K OHM +-5% 1/16W
R2359	0700049	CF 4.7K OHM +-5% 1/16W
R2361	0700063	CF 47K OHM +-5% 1/16W
R2362	0700055	CF 12K OHM +-5% 1/16W
R2363	0700041	CF 1K OHM +-5% 1/16W
R2364	0700049	CF 4.7K OHM +-5% 1/16W
R2365	0700059	CF 27K OHM +-5% 1/16W
R2366	0700041	CF 1K OHM +-5% 1/16W
R2367	0700049	CF 4.7K OHM +-5% 1/16W
R2368	0700041	CF 1K OHM +-5% 1/16W
R2369	0700051	CF 5.6K OHM +-5% 1/16W
R2370	0700043	CF 1.5K OHM +-5% 1/16W
R2371	0700048	CF 3.9K OHM +-5% 1/16W
R2372	0150134	VR 1K OHM-B
R2373	0700047	CF 3.3K OHM +-5% 1/16W
R2374	0700065	CF 68K OHM +-5% 1/16W
R2375	0700047	CF 3.3K OHM +-5% 1/16W
R2376	0700063	CF 47K OHM +-5% 1/16W
R2377	0700063	CF 47K OHM +-5% 1/16W
R2378	0700065	CF 68K OHM +-5% 1/16W
R2379	0700041	CF 1K OHM +-5% 1/16W
R2380	0700049	CF 4.7K OHM +-5% 1/16W
R2381	0700041	CF 1K OHM +-5% 1/16W
R2383	0700041	CF 1K OHM +-5% 1/16W
R2384	0700049	CF 4.7K OHM +-5% 1/16W
R2388	0700041	CF 1K OHM +-5% 1/16W
R2389	0700041	CF 1K OHM +-5% 1/16W
R2390	0700052	CF6.8K OHM +-5% 1/16W
R2391	0700062	CF 39K OHM +-5% 1/16W
R2392	0700041	CF 1K OHM +-5% 1/16W
R2393	0700042	CF 1.2K OHM +-5% 1/16W
R2394	0187082	CF 5.1K OHM +-5% 1/16W
R2396	0700041	CF 1K OHM +-5% 1/16W
R2397	0700052	CF 6.8K OHM +-5% 1/16W
R2398	0700054	CF 10K OHM +-5% 1/16W
R2399	0700043	CF 1.5K OHM +-5% 1/16W
R2400	0700049	CF 4.7K OHM +-5% 1/16W
R2401	0700041	CF 1K OHM +-5% 1/16W
R2402	0700041	CF 1K OHM +-5% 1/16W
R2403	0700066	CF 82K OHM +-5% 1/16W
R2404	0700056	CF 15K OHM +-5% 1/16W
R2405	0700054	CF 10K OHM +-5% 1/16W
R2406	0700047	CF 3.3K OHM +-5% 1/16W
R2407	0700047	CF 3.3K OHM +-5% 1/16W
R2408	0700041	CF 1K OHM +-5% 1/16W
R2409	0700041	CF 1K OHM +-5% 1/16W
R2410	0700066	CF 82K OHM +-5% 1/16W
R2411	0700056	CF 15K OHM +-5% 1/16W
R2412	0700064	CF 56K OHM +-5% 1/16W
R2413	0700064	CF 56K OHM +-5% 1/16W
R2414	0700062	CF 39K OHM +-5% 1/16W
R2417	0700058	CF 22K OHM +-5% 1/16W
R2419	0700065	CF 68K OHM +-5% 1/16W
R2420	0700054	CF 10K OHM +-5% 1/16W
R2421	0700054	CF 10K OHM +-5% 1/16W
R2422	0187090	CF 11K OHM +-5% 1/16W
R2423	0700053	CF 8.2K OHM +-5% 1/16W
R2424	0187110	CF 75K OHM +-5% 1/16W
R2425	0700038	CF 680 OHM +-5% 1/16W
R2426	0700061	CF 33K OHM +-5% 1/16W
R2427	0700049	CF 4.7K OHM +-5% 1/16W
R2428	0700058	CF 22K OHM +-5% 1/16W
R2429	0114177	CF 4.7K OHM +-5% 1/4W
R2441	0100124	CF 300K OHM +-5% 1/8W
R2443	0700059	CF 27K OHM +-5% 1/16W
R2445	0700052	CF 6.8K OHM +-5% 1/16W
R2446	0700054	CF 10K OHM +-5% 1/16W
R2447	0700067	CF 100K OHM +-5% 1/16W
R2448	0700064	CF 56K OHM +-5% 1/16W
R2449	0700063	CF 47K OHM +-5% 1/16W
R2450	0700042	CF 1.2K OHM +-5% 1/16W
R2451	0100081	CF 4.7K OHM +-5% 1/8W
R2454	0700063	CF 47K OHM +-5% 1/16W
R2455	0700059	CF 27K OHM +-5% 1/16W
R2456	0700063	CF 47K OHM +-5% 1/16W
R2466	0700052	CF 6.8K OHM +-5% 1/16W
R2470	0700067	CF 100K OHM +-5% 1/16W
R2471	0700054	CF10K OHM +-5% 1/16W
R2473	0700052	CF 6.8K OHM +-5% 1/16W
R2474	0700051	CF 5.6K OHM +-5% 1/16W
R2479	0700066	CF 82K OHM +-5% 1/16W
R2480	0700063	CF 47K OHM +-5% 1/16W
R2481	0700063	CF 47K OHM +-5% 1/16W
R2482	0700062	CF 39K OHM +-5% 1/16W
R2483	0700039	CF 820 OHM +-5% 1/16W
R2501	0700043	CF 1.5K OHM +-5% 1/16W
R2502	0700044	CF 1.8K OHM +-5% 1/16W
R2503	0700043	CF 1.5K OHM +-5% 1/16W
R2504	0700051	CF 5.6K OHM +-5% 1/16W
R2505	0187106	CF 51K OHM +-5% 1/16W
R2506	0700054	CF 10K OHM +-5% 1/16W
R2510	0700041	CF 1K OHM +-5% 1/16W
R2517	0100075	CF 2.7K OHM +-5% 1/8W
R2518	0700067	CF 100K OHM +-5% 1/16W
R2519	0700058	CF 22K OHM +-5% 1/16W
R2520	0700048	CF 3.9K OHM +-5% 1/16W
R2521	0119514	FR 10 OHM +-5% 1/4W
R2522	0119514	FR 10 OHM +-5% 1/4W
R3001	0700027	CF 100 OHM +-5% 1/16W
R3002	0700027	CF 100 OHM +-5% 1/16W
R3020	0700034	CF 330 OHM +-5% 1/16W
R3022	0100047	CF 180 OHM +-5% 1/8W
R3025	0187038	CF 75 OHM +-5% 1/16W
R3026	0187038	CF 75 OHM +-5% 1/16W
R3033	0700041	CF 1K OHM +-5% 1/16W
R3035	0700067	CF 100K OHM +-5% 1/16W
R3036	0700041	CF 1K OHM +-5% 1/16W
R3037	0700067	CF 100K OHM +-5% 1/16W
R3038	0700025	CF 68 OHM +-5% 1/16W
R3039	0700067	CF 100K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R304	0700067	CF 100K OHM +-5% 1/16W	R3139	0700041	CF 1K OHM +-5% 1/16W
R305	0700058	CF 22K OHM +-5% 1/16W	R314	0700049	CF 4.7K OHM +-5% 1/16W
R306	0700055	CF 12K OHM +-5% 1/16W	⚠R3140	0150137	VR 10K OHM-B
R3063	0700027	CF 100 OHM +-5% 1/16W	R3141	0700045	CF 2.2K OHM +-5% 1/16W
R3065	0700039	CF 820 OHM +-5% 1/16W	R3142	0700045	CF 2.2K OHM +-5% 1/16W
R3066	0700041	CF 1K OHM +-5% 1/16W	⚠R3143	0150137	VR 10K OHM-B
R3068	0700041	CF 1K OHM +-5% 1/16W	R3144	0700045	CF 2.2K OHM +-5% 1/16W
R3069	0700041	CF 1K OHM +-5% 1/16W	R3145	0700045	CF 2.2K OHM +-5% 1/16W
R307	0700058	CF 22K OHM +-5% 1/16W	⚠R3146	0150137	VR 10K OHM-B
R308	0700064	CF 56K OHM +-5% 1/16W	R3147	0700047	CF 3.3K OHM +-5% 1/16W
R3081	0700041	CF 1K OHM +-5% 1/16W	R3148	0700047	CF 3.3K OHM +-5% 1/16W
R3082	0700041	CF 1K OHM +-5% 1/16W	R3149	0700027	CF 100 OHM +-5% 1/16W
R3083	0700027	CF 100 OHM +-5% 1/16W	R315	0700051	CF 5.6K OHM +-5% 1/16W
R3084	0700041	CF 1K OHM +-5% 1/16W	R3150	0700032	CF 220 OHM +-5% 1/16W
R3085	0700041	CF 1K OHM +-5% 1/16W	R3151	0700027	CF 100 OHM +-5% 1/16W
R3086	0700027	CF 100 OHM +-5% 1/16W	R3152	0700032	CF 220 OHM +-5% 1/16W
R309	0700052	CF 6.8K OHM +-5% 1/16W	R3153	0700027	CF 100 OHM +-5% 1/16W
R3094	0700039	CF 820 OHM +-5% 1/16W	R3154	0700032	CF 220 OHM +-5% 1/16W
R3095	0700027	CF 100 OHM +-5% 1/16W	R3155	0700027	CF 100 OHM +-5% 1/16W
R3096	0700027	CF 100 OHM +-5% 1/16W	R3156	0700041	CF 1K OHM +-5% 1/16W
R3097	0700054	CF 10K OHM +-5% 1/16W	R3157	0700041	CF 1K OHM +-5% 1/16W
R3098	0700054	CF 10K OHM +-5% 1/16W	R3158	0700061	CF 33K OHM +-5% 1/16W
R3099	0700054	CF 10K OHM +-5% 1/16W	R316	0700047	CF 3.3K OHM +-5% 1/16W
R310	0700051	CF 5.6K OHM +-5% 1/16W	R3160	0700061	CF 33K OHM +-5% 1/16W
R3100	0700054	CF 10K OHM +-5% 1/16W	R3166	0700054	CF 10K OHM +-5% 1/16W
R3101	0700027	CF 100 OHM +-5% 1/16W	R3167	0100045	CF 150 OHM +-5% 1/8W
R3103	0700031	CF 180 OHM +-5% 1/16W	R3168	0700041	CF 1K OHM +-5% 1/16W
R3104	0700063	CF 47K OHM +-5% 1/16W	R3169	0700041	CF 1K OHM +-5% 1/16W
R3105	0700063	CF 47K OHM +-5% 1/16W	R317	0700039	CF 820 OHM +-5% 1/16W
R3106	0700039	CF 820 OHM +-5% 1/16W	R3170	0700041	CF 1K OHM +-5% 1/16W
R3107	0700041	CF 1K OHM +-5% 1/16W	R3171	0700054	CF 10K OHM +-5% 1/16W
R3108	0700041	CF 1K OHM +-5% 1/16W	R3172	0700041	CF 1K OHM +-5% 1/16W
R3109	0700038	CF 680 OHM +-5% 1/16W	R3173	0700027	CF 100 OHM +-5% 1/16W
R311	0700053	CF 8.2K OHM +-5% 1/16W	R3174	0700054	CF 10K OHM +-5% 1/16W
R3111	0700027	CF 100 OHM +-5% 1/16W	R3175	0700049	CF 4.7K OHM +-5% 1/16W
R3112	0187038	CF 75 OHM +-5% 1/16W	R3176	0150137	VR 10K OHM-B
R3113	0700041	CF 1K OHM +-5% 1/16W	R3179	0700043	CF 1.5K OHM +-5% 1/16W
R3114	0700067	CF 100K OHM +-5% 1/16W	R318	0100117	CF 150K OHM +-5% 1/8W
R3115	0700041	CF 1K OHM +-5% 1/16W	R3180	0700038	CF 680 OHM +-5% 1/16W
R3116	0700067	CF 100K OHM +-5% 1/16W	R3181	0700054	CF 10K OHM +-5% 1/16W
R3117	0187038	CF 75 OHM +-5% 1/16W	R319	0700049	CF 4.7K OHM +-5% 1/16W
R3118	0700067	CF 100K OHM +-5% 1/16W	R320	0100123	CF 270K OHM +-5% 1/8W
R3119	0700067	CF 100K OHM +-5% 1/16W	R321	0700054	CF 10K OHM +-5% 1/16W
R312	0700055	CF 12K OHM +-5% 1/16W	R322	0700049	CF 4.7K OHM +-5% 1/16W
R3125	0700027	CF 100 OHM +-5% 1/16W	R323	0700058	CF 22K OHM +-5% 1/16W
R3126	0700034	CF 330 OHM +-5% 1/16W	R324	0700057	CF 18K OHM +-5% 1/16W
R3127	0700041	CF 1K OHM +-5% 1/16W	R325	0700041	CF 1K OHM +-5% 1/16W
R3129	0700027	CF 100 OHM +-5% 1/16W	R326	0700045	CF 2.2K OHM +-5% 1/16W
⚠R313	0150136	VR 5K OHM-B	R327	0700039	CF 820 OHM +-5% 1/16W
R3130	0700047	CF 3.3K OHM +-5% 1/16W	R328	0700043	CF 1.5K OHM +-5% 1/16W
R3131	0700054	CF 10K OHM +-5% 1/16W	R329	0700046	CF 2.7K OHM +-5% 1/16W
R3132	0700054	CF 10K OHM +-5% 1/16W	R3301	0700041	CF 1K OHM +-5% 1/16W
R3133	0700027	CF 100 OHM +-5% 1/16W	R3302	0700041	CF 1K OHM +-5% 1/16W
R3134	0700027	CF 100 OHM +-5% 1/16W	R3303	0700041	CF 1K OHM +-5% 1/16W
R3135	0700027	CF 100 OHM +-5% 1/16W	R3305	0700058	CF 22K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R3306	0700058	CF 22K OHM +-5% 1/16W	R350	0700059	CF 27K OHM +-5% 1/16W
R3307	0700058	CF 22K OHM +-5% 1/16W	R3505	0700027	CF 100 OHM +-5% 1/16W
R3308	0700058	CF 22K OHM +-5% 1/16W	R351	0700058	CF 22K OHM +-5% 1/16W
R3309	0700058	CF 22K OHM +-5% 1/16W	R352	0700058	CF 22K OHM +-5% 1/16W
R331	0700038	CF 680 OHM +-5% 1/16W	R353	0700058	CF 22K OHM +-5% 1/16W
R3310	0700041	CF 1K OHM +-5% 1/16W	R354	0700067	CF 100K OHM +-5% 1/16W
R3311	0700041	CF 1K OHM +-5% 1/16W	R355	0700049	CF 4.7K OHM +-5% 1/16W
R3312	0700041	CF 1K OHM +-5% 1/16W	R356	0700048	CF 3.9K OHM +-5% 1/16W
R3313	0700041	CF 1K OHM +-5% 1/16W	R358	0700041	CF 1K OHM +-5% 1/16W
R3314	0700041	CF 1K OHM +-5% 1/16W	R359	0700054	CF 10K OHM +-5% 1/16W
R3315	0700067	CF 100K OHM +-5% 1/16W	R361	0700043	CF 1.5K OHM +-5% 1/16W
R3316	0700063	CF 47K OHM +-5% 1/16W	R362	0700027	CF 100 OHM +-5% 1/16W
R3317	0700037	CF 560 OHM +-5% 1/16W	R363	0700027	CF 100 OHM +-5% 1/16W
R3318	0700041	CF 1K OHM +-5% 1/16W	R364	0100053	CF 330 OHM +-5% 1/8W
R3319	0187066	CF 1.1K OHM +-5% 1/16W	R365	0700045	CF 2.2K OHM +-5% 1/16W
R332	0700034	CF 330 OHM +-5% 1/16W	R366	0700041	CF 1K OHM +-5% 1/16W
R3320	0700063	CF 47K OHM +-5% 1/16W	R367	0100053	CF 330 OHM +-5% 1/8W
R3321	0700064	CF 56K OHM +-5% 1/16W	R368	0700025	CF 68 OHM +-5% 1/16W
R3322	0700045	CF 2.2K OHM +-5% 1/16W	R371	0700058	CF 22K OHM +-5% 1/16W
R3325	0700027	CF 100 OHM +-5% 1/16W	R372	0700058	CF 22K OHM +-5% 1/16W
R3326	0700036	CF 470 OHM +-5% 1/16W	R373	0700028	CF 120 OHM +-5% 1/16W
R3327	0700036	CF 470 OHM +-5% 1/16W	R374	0700058	CF 22K OHM +-5% 1/16W
R3329	0700027	CF 100 OHM +-5% 1/16W	R375	0700058	CF 22K OHM +-5% 1/16W
R333	0700042	CF 1.2K OHM +-5% 1/16W	R378	0700034	CF 330 OHM +-5% 1/16W
R3330	0700037	CF 560 OHM +-5% 1/16W	R379	0700033	CF 270 OHM +-5% 1/16W
R3331	0700037	CF 560 OHM +-5% 1/16W	R381	0700054	CF 10K OHM +-5% 1/16W
R334	0700061	CF 33K OHM +-5% 1/16W	R382	0700067	CF 100K OHM +-5% 1/16W
R3342	0700058	CF 22K OHM +-5% 1/16W	R383	0700032	CF 220 OHM +-5% 1/16W
R3343	0700058	CF 22K OHM +-5% 1/16W	R384	0700028	CF 120 OHM +-5% 1/16W
R3344	0700042	CF 1.2K OHM +-5% 1/16W	R385	0700022	CF 39 OHM +-5% 1/16W
R3345	0700063	CF 47K OHM +-5% 1/16W	R386	0700027	CF 100 OHM +-5% 1/16W
R3346	0700062	CF 39K OHM +-5% 1/16W	R387	0700037	CF 560 OHM +-5% 1/16W
R3347	0700058	CF 22K OHM +-5% 1/16W	R388	0100053	CF 330 OHM +-5% 1/8W
R3348	0700061	CF 33K OHM +-5% 1/16W	R389	0700025	CF 68 OHM +-5% 1/16W
R3349	0700041	CF 1K OHM +-5% 1/16W	R392	0700037	CF 560 OHM +-5% 1/16W
R335	0700058	CF 22K OHM +-5% 1/16W	R396	0700041	CF 1K OHM +-5% 1/16W
R3350	0700061	CF 33K OHM +-5% 1/16W	R397	0700044	CF 1.8K OHM +-5% 1/16W
R3351	0700058	CF 22K OHM +-5% 1/16W	R398	0700032	CF 220 OHM +-5% 1/16W
R3352	0700041	CF 1K OHM +-5% 1/16W	R399	0700058	CF 22K OHM +-5% 1/16W
R3353	0700027	CF 100 OHM +-5% 1/16W	R4001	0110311	MF 39 OHM +-5% 3W
R3354	0700027	CF 100 OHM +-5% 1/16W	R4003	0114161	CF 1K OHM +-5% 1/4W
R336	0700027	CF 100 OHM +-5% 1/16W	R4004	0114145	CF 390 OHM +-5% 1/4W
R337	0700044	CF 1.8K OHM +-5% 1/16W	R4005	0114145	CF 390 OHM +-5% 1/4W
R338	0700063	CF 47K OHM +-5% 1/16W	R4010	0700041	CF 1K OHM +-5% 1/16W
R339	0100055	CF 390 OHM +-5% 1/8W	R4011	0700054	CF 10K OHM +-5% 1/16W
R340	0700041	CF 1K OHM +-5% 1/16W	R4012	0700062	CF 39K OHM +-5% 1/16W
R341	0700039	CF 820 OHM +-5% 1/16W	R4014	0700034	CF 330 OHM +-5% 1/16W
R342	0700061	CF 33K OHM +-5% 1/16W	R4015	0700052	CF 6.8K OHM +-5% 1/16W
R343	0700039	CF 820 OHM +-5% 1/16W	R4016	0700041	CF 1K OHM +-5% 1/16W
R344	0700041	CF 1K OHM +-5% 1/16W	R4017	0700041	CF 1K OHM +-5% 1/16W
R345	0700052	CF 6.8K OHM +-5% 1/16W	R4018	0700067	CF 100K OHM +-5% 1/16W
R346	0700054	CF 10K OHM +-5% 1/16W	R4019	0700051	CF 5.6K OHM +-5% 1/16W
R347	0700058	CF 22K OHM +-5% 1/16W	R4020	0700041	CF 1K OHM +-5% 1/16W
⚠R348	0150137	VR 10K OHM-B	R4021	0700041	CF 1K OHM +-5% 1/16W
R349	0700059	CF 27K OHM +-5% 1/16W	R4022	0700051	CF 5.6K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R4023	0700054	CF 10K OHM +-5% 1/16W	⚠R4100	01195051	FR 2.2 OHM +-5% 1/4W
R4024	0700062	CF 39K OHM +-5% 1/16W	R4101	0700054	CF 10K OHM +-5% 1/16W
R4026	0700034	CF 330 OHM +-5% 1/16W	R4103	0700054	CF 10K OHM +-5% 1/16W
R4027	0700052	CF 6.8K OHM +-5% 1/16W	R4104	0700054	CF 10K OHM +-5% 1/16W
R4028	0700041	CF 1K OHM +-5% 1/16W	R4105	0700054	CF 10K OHM +-5% 1/16W
R4029	0700041	CF 1K OHM +-5% 1/16W	R4106	0700054	CF 10K OHM +-5% 1/16W
R4030	0700067	CF 100K OHM +-5% 1/16W	R4107	0700054	CF 10K OHM +-5% 1/16W
R4031	0700041	CF 1K OHM +-5% 1/16W	R4109	0114161	CF 1K OHM +-5% 1/4W
R4032	0114139	CF 220 OHM +-5% 1/4W	R4116	0700061	CF 33K OHM +-5% 1/16W
R4034	0700063	CF 47K OHM +-5% 1/16W	R4118	0700045	CF 2.2K OHM +-5% 1/16W
R4035	0700049	CF 4.7K OHM +-5% 1/16W	R4119	0700067	CF 100K OHM +-5% 1/16W
R4036	0700049	CF 4.7K OHM +-5% 1/16W	R4120	0700067	CF 100K OHM +-5% 1/16W
R4037	0700054	CF 10K OHM +-5% 1/16W	R4121	0700027	CF 100 OHM +-5% 1/16W
R4039	0700065	CF 68K OHM +-5% 1/16W	R4122	0700067	CF 100K OHM +-5% 1/16W
R4041	0700065	CF 68K OHM +-5% 1/16W	R4124	0700041	CF 1K OHM +-5% 1/16W
R4043	0700052	CF 6.8K OHM +-5% 1/16W	R4125	0700041	CF 1K OHM +-5% 1/16W
R4045	0700054	CF 10K OHM +-5% 1/16W	R4126	0700045	CF2.2K OHM +-5% 1/16W
R4046	0700055	CF 12K OHM +-5% 1/16W	R4127	0700045	CF 2.2K OHM +-5% 1/16W
R4048	0700043	CF 1.5K OHM +-5% 1/16W	R4134	0700041	CF 1K OHM +-5% 1/16W
R4049	0700038	CF 680 OHM +-5% 1/16W	R4135	0700041	CF 1K OHM +-5% 1/16W
R4050	0700037	CF 560 OHM +-5% 1/16W	R4136	0700049	CF 4.7K OHM +-5% 1/16W
R4051	0100121	CF 220K OHM +-5% 1/8W	R4137	0700063	CF 47K OHM +-5% 1/16W
R4052	0100121	CF 220K OHM +-5% 1/8W	R4138	0700048	CF 3.9K OHM +-5% 1/16W
R4053	0700038	CF 680 OHM +-5% 1/16W	R4139	0700063	CF 47K OHM +-5% 1/16W
R4054	0700037	CF 560 OHM +-5% 1/16W	R4140	0700049	CF 4.7K OHM +-5% 1/16W
R4055	0700043	CF 1.5K OHM +-5% 1/16W	R4141	0700063	CF 47K OHM +-5% 1/16W
R4057	0700049	CF 4.7K OHM +-5% 1/16W	R4142	0700048	CF 3.9K OHM +-5% 1/16W
R4058	0700054	CF 10K OHM +-5% 1/16W	R4143	0700063	CF 47K OHM +-5% 1/16W
R4059	0700045	CF 2.2K OHM +-5% 1/16W	R4144	0700054	CF 10K OHM +-5% 1/16W
R4066	0700045	CF 2.2K OHM +-5% 1/16W	R4146	0114139	CF 220 OHM +-5% 1/4W
R4067	0700067	CF 100K OHM +-5% 1/16W	R4147	0700041	CF 1K OHM +-5% 1/16W
R4068	0700049	CF 4.7K OHM +-5% 1/16W	R4148	0700067	CF 100K OHM +-5% 1/16W
R4069	0700054	CF 10K OHM +-5% 1/16W	R4149	0700067	CF 100K OHM +-5% 1/16W
R4070	0700067	CF 100K OHM +-5% 1/16W	R4150	0700061	CF 33K OHM +-5% 1/16W
R4073	0100061	CF 680 OHM +-5% 1/8W	R4151	0700061	CF 33K OHM +-5% 1/16W
R4074	0700065	CF 68K OHM +-5% 1/16W	R4152	0700056	CF 15K OHM +-5% 1/16W
R4076	0700063	CF 47K OHM +-5% 1/16W	R4153	0700061	CF 33K OHM +-5% 1/16W
R4077	0700049	CF 4.7K OHM +-5% 1/16W	R4154	0700046	CF 2.7K OHM +-5% 1/16W
R4079	0114139	CF 220 OHM +-5% 1/4W	R4155	0700054	CF 10K OHM +-5% 1/16W
R4080	0700061	CF 33K OHM +-5% 1/16W	R4404	0700061	CF 33K OHM +-5% 1/16W
R4081	0700054	CF 10K OHM +-5% 1/16W	R4408	0700061	CF 33K OHM +-5% 1/16W
R4082	0700054	CF 10K OHM +-5% 1/16W	R4410	0100117	CF 150K OHM +-5% 1/8W
R4083	0700041	CF 1K OHM +-5% 1/16W	R4411	0700065	CF 68K OHM +-5% 1/16W
⚠R4084	01195051	FR 2.2 OHM +-5% 1/4W	R4415	0700045	CF 2.2K OHM +-5% 1/16W
⚠R4085	01195051	FR 2.2 OHM +-5% 1/4W	R4416	0700045	CF 2.2K OHM +-5% 1/16W
R4086	0114143	CF 330 OHM +-5% 1/4W	R4419	0100121	CF 220K OHM +-5% 1/8W
R4089	0700058	CF 22K OHM +-5% 1/16W	R4420	0100121	CF 220K OHM +-5% 1/8W
R4090	0700054	CF 10K OHM +-5% 1/16W	R4421	0100121	CF 220K OHM +-5% 1/8W
R4093	0100049	CF 220 OHM +-5% 1/8W	R4422	0100121	CF 220K OHM +-5% 1/8W
R4094	0114143	CF 330 OHM +-5% 1/4W	R4423	0100121	CF 220K OHM +-5% 1/8W
R4095	0700061	CF 33K OHM +-5% 1/16W	R4424	0100121	CF 220K OHM +-5% 1/8W
R4096	0700054	CF 10K OHM +-5% 1/16W	R4425	0100121	CF 220K OHM +-5% 1/8W
R4097	0700054	CF 10K OHM +-5% 1/16W	R4426	0100121	CF 220K OHM +-5% 1/8W
R4098	0700041	CF 1K OHM +-5% 1/16W	R4427	0100121	CF 220K OHM +-5% 1/8W
⚠R4099	01195051	FR 2.2 OHM +-5% 1/4W	R4428	0100121	CF 220K OHM +-5% 1/8W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R4431	0700064	CF 56K OHM +-5% 1/16W	R4488	0700031	CF 180 OHM +-5% 1/16W
R4432	0700064	CF 56K OHM +-5% 1/16W	R4489	0100077	CF 3.3K OHM +-5% 1/8W
R4433	0700067	CF 100K OHM +-5% 1/16W	R4490	0100117	CF 150K OHM +-5% 1/8W
R4434	0700067	CF 100K OHM +-5% 1/16W	R4491	0700063	CF 47K OHM +-5% 1/16W
R4435	0700067	CF 100K OHM +-5% 1/16W	R4492	0700064	CF 56K OHM +-5% 1/16W
R4436	0700067	CF 100K OHM +-5% 1/16W	R4493	0187100	CF 30K OHM +-5% 1/16W
R4437	0700067	CF 100K OHM +-5% 1/16W	R4494	0700051	CF 5.6K OHM +-5% 1/16W
R4438	0700067	CF 100K OHM +-5% 1/16W	R4495	0700051	CF 5.6K OHM +-5% 1/16W
R4439	0700067	CF 100K OHM +-5% 1/16W	R4496	0700054	CF 10K OHM +-5% 1/16W
R4440	0700067	CF 100K OHM +-5% 1/16W	R4497	0100125	CF 330K OHM +-5% 1/8W
R4441	0700067	CF 100K OHM +-5% 1/16W	R4498	0100127	CF 390K OHM +-5% 1/8W
R4442	0700067	CF 100K OHM +-5% 1/16W	R4499	0700061	CF 33K OHM +-5% 1/16W
R4443	0700067	CF 100K OHM +-5% 1/16W	R4500	0100121	CF 220K OHM +-5% 1/8W
R4444	0700063	CF 47K OHM +-5% 1/16W	R4501	0100121	CF 220K OHM +-5% 1/8W
R4445	0700063	CF 47K OHM +-5% 1/16W	R4502	0100121	CF 220K OHM +-5% 1/8W
R4446	0700067	CF 100K OHM +-5% 1/16W	R4503	0700064	CF 56K OHM +-5% 1/16W
R4447	0700067	CF 100K OHM +-5% 1/16W	R4504	0700045	CF 2.2K OHM +-5% 1/16W
R4448	0700063	CF 47K OHM +-5% 1/16W	R4505	0700063	CF 47K OHM +-5% 1/16W
R4449	0700063	CF 47K OHM +-5% 1/16W	R4506	0700054	CF 10K OHM +-5% 1/16W
R4450	0700067	CF 100K OHM +-5% 1/16W	R4507	0100059	CF 560 OHM +-5% 1/8W
R4451	0700067	CF 100K OHM +-5% 1/16W	R4508	0700049	CF 4.7K OHM +-5% 1/16W
R4452	0700054	CF 10K OHM +-5% 1/16W	R4509	0100123	CF 270K OHM +-5% 1/8W
R4454	0700041	CF 1K OHM +-5% 1/16W	R4510	0700067	CF 100K OHM +-5% 1/16W
R4455	0700041	CF 1K OHM +-5% 1/16W	R4511	0700054	CF 10K OHM +-5% 1/16W
R4456	0700067	CF 100K OHM +-5% 1/16W	R4512	0700054	CF 10K OHM +-5% 1/16W
R4457	0700067	CF 100K OHM +-5% 1/16W	R4513	0700054	CF 10K OHM +-5% 1/16W
R4458	0700027	CF 100 OHM +-5% 1/16W	R4514	0700054	CF 10K OHM +-5% 1/16W
R4460	0700027	CF 100 OHM +-5% 1/16W	R4515	0700041	CF 1K OHM +-5% 1/16W
R4461	0700054	CF 10K OHM +-5% 1/16W	R4516	0700041	CF 1K OHM +-5% 1/16W
R4462	0700054	CF 10K OHM +-5% 1/16W	R4517	0700041	CF 1K OHM +-5% 1/16W
R4463	0700045	CF 2.2K OHM +-5% 1/16W	R4518	0700041	CF 1K OHM +-5% 1/16W
R4464	0700063	CF 47K OHM +-5% 1/16W	R4521	0700034	CF 330 OHM +-5% 1/16W
R4465	0151717	VR 5K OHM-B R-8	R4522	0700047	CF 3.3K OHM +-5% 1/16W
R4466	0700045	CF 2.2K OHM +-5% 1/16W	R4523	0700045	CF 2.2K OHM +-5% 1/16W
R4467	0700051	CF 5.6K OHM +-5% 1/16W	R4524	0700063	CF 47K OHM +-5% 1/16W
R4468	0700051	CF 5.6K OHM +-5% 1/16W	R4525	0700067	CF 100K OHM +-5% 1/16W
R4469	0700067	CF 100K OHM +-5% 1/16W	R4526	0700067	CF 100K OHM +-5% 1/16W
R4470	0700067	CF 100K OHM +-5% 1/16W	R4527	0700045	CF 2.2K OHM +-5% 1/16W
R4471	0113725	CF 100 OHM +-5% 1/2W	R4528	0700054	CF 10K OHM +-5% 1/16W
R4472	0700027	CF 100 OHM +-5% 1/16W	R4529	0700054	CF 10K OHM +-5% 1/16W
R4473	0700062	CF 39K OHM +-5% 1/16W	R4530	0700054	CF 10K OHM +-5% 1/16W
R4474	0700058	CF 22K OHM +-5% 1/16W	R4531	0700054	CF 10K OHM +-5% 1/16W
R4475	0700054	CF 10K OHM +-5% 1/16W	R4532	0700067	CF 100K OHM +-5% 1/16W
R4476	0187096	CF 20K OHM +-5% 1/16W	R4533	0700061	CF 33K OHM +-5% 1/16W
R4477	0187096	CF 20K OHM +-5% 1/16W	R4534	0100059	CF 560 OHM +-5% 1/8W
R4478	0700054	CF 10K OHM +-5% 1/16W	R4535	0700054	CF 10K OHM +-5% 1/16W
R4479	0700053	CF 8.2K OHM +-5% 1/16W	R4536	0700054	CF 10K OHM +-5% 1/16W
R4480	0700052	CF 6.8K OHM +-5% 1/16W	R4537	0700067	CF 100K OHM +-5% 1/16W
R4481	0700053	CF 8.2K OHM +-5% 1/16W	R4601	0700041	CF 1K OHM +-5% 1/16W
R4482	0700056	CF 15K OHM +-5% 1/16W	R4602	0179536	MG 1M OHM +-5% 1/8W
R4483	0700067	CF 100K OHM +-5% 1/16W	R4603	0700058	CF 22K OHM +-5% 1/16W
R4484	0700041	CF 1K OHM +-5% 1/16W	R4604	0700027	CF 100 OHM +-5% 1/16W
R4485	0700045	CF 2.2K OHM +-5% 1/16W	R4605	0700067	CF 100K OHM +-5% 1/16W
R4486	0700053	CF 8.2K OHM +-5% 1/16W	R4606	0700063	CF 47K OHM +-5% 1/16W
⚠R4487	0119514	FR 10 OHM +-5% 1/4W	R4607	0700067	CF 100K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R4608	0700053	CF 8.2K OHM +-5% 1/16W	R4667	0700061	CF 33K OHM +-5% 1/16W
R4609	0700056	CF 15K OHM +-5% 1/16W	R4668	0700061	CF 33K OHM +-5% 1/16W
R4610	0150284	VR 2K OHM-B	R4669	0700061	CF 33K OHM +-5% 1/16W
R4611	0700067	CF 100K OHM +-5% 1/16W	R4670	0700061	CF 33K OHM +-5% 1/16W
R4612	0700067	CF 100K OHM +-5% 1/16W	R4671	0100117	CF 150K OHM +-5% 1/8W
R4613	0700067	CF 100K OHM +-5% 1/16W	R4672	0700061	CF 33K OHM +-5% 1/16W
R4614	0700063	CF 47K OHM +-5% 1/16W	R4673	0700056	CF 15K OHM +-5% 1/16W
R4615	0187086	CF 7.5K OHM +-5% 1/16W	R4674	0700056	CF 15K OHM +-5% 1/16W
R4616	0700054	CF 10K OHM +-5% 1/16W	R4675	0700049	CF 4.7K OHM +-5% 1/16W
R4617	0700054	CF 10K OHM +-5% 1/16W	R4676	0700061	CF 33K OHM +-5% 1/16W
R4618	0100129	CF 470K OHM +-5% 1/8W	R4677	0700061	CF 33K OHM +-5% 1/16W
R4619	0100129	CF 470K OHM +-5% 1/8W	R4678	0700067	CF 100K OHM +-5% 1/16W
R4620	0700063	CF 47K OHM +-5% 1/16W	R4679	0700067	CF 100K OHM +-5% 1/16W
R4621	0187086	CF 7.5K OHM +-5% 1/16W	R4680	0700067	CF 100K OHM +-5% 1/16W
R4622	0700056	CF 15K OHM +-5% 1/16W	R4681	0700044	CF 1.8K OHM +-5% 1/16W
R4623	0700056	CF 15K OHM +-5% 1/16W	R502	0700032	CF 220 OHM +-5% 1/16W
R4624	0700041	CF 1K OHM +-5% 1/16W	R503	0700037	CF 560 OHM +-5% 1/16W
R4625	0700041	CF 1K OHM +-5% 1/16W	R504	0700036	CF 470 OHM +-5% 1/16W
R4626	0700054	CF 10K OHM +-5% 1/16W	R505	0700056	CF 15K OHM +-5% 1/16W
R4627	0700054	CF 10K OHM +-5% 1/16W	R506	0700057	CF 18K OHM +-5% 1/16W
R4628	0700051	CF 5.6K OHM +-5% 1/16W	R507	0700041	CF 1K OHM +-5% 1/16W
R4629	0700051	CF 5.6K OHM +-5% 1/16W	R508	0700053	CF 8.2K OHM +-5% 1/16W
R4630	0700041	CF 1K OHM +-5% 1/16W	R509	0700057	CF 18K OHM +-5% 1/16W
R4633	0700027	CF 100 OHM +-5% 1/16W	R510	0700045	CF 2.2K OHM +-5% 1/16W
R4634	0700041	CF 1K OHM +-5% 1/16W	R511	0700058	CF 22K OHM +-5% 1/16W
R4635	0700041	CF 1K OHM +-5% 1/16W	R512	0700058	CF 22K OHM +-5% 1/16W
R4636	0700067	CF 100K OHM +-5% 1/16W	R513	0700049	CF 4.7K OHM +-5% 1/16W
R4638	0179536	MG 1M OHM +-5% 1/8W	R514	0700049	CF 4.7K OHM +-5% 1/16W
R4639	0179536	MG 1M OHM +-5% 1/8W	R515	0700064	CF 56K OHM +-5% 1/16W
R4640	0700041	CF 1K OHM +-5% 1/16W	R516	0700057	CF 18K OHM +-5% 1/16W
R4641	0700041	CF 1K OHM +-5% 1/16W	R517	0100121	CF 220K OHM +-5% 1/8W
R4642	0700041	CF 1K OHM +-5% 1/16W	R518	0700067	CF 100K OHM +-5% 1/16W
R4644	0700041	CF 1K OHM +-5% 1/16W	R519	0100125	CF 330K OHM +-5% 1/8W
R4645	0700045	CF 2.2K OHM +-5% 1/16W	R520	0700047	CF 3.3K OHM +-5% 1/16W
R4646	0700054	CF 10K OHM +-5% 1/16W	R521	0700054	CF 10K OHM +-5% 1/16W
R4647	0700054	CF 10K OHM +-5% 1/16W	R522	0700055	CF 12K OHM +-5% 1/16W
R4648	0700054	CF 10K OHM +-5% 1/16W	R523	0700054	CF 10K OHM +-5% 1/16W
R4649	0700054	CF 10K OHM +-5% 1/16W	R526	0700047	CF 3.3K OHM +-5% 1/16W
R4650	0700051	CF 5.6K OHM +-5% 1/16W	R527	0700056	CF 15K OHM +-5% 1/16W
R4651	0700041	CF 1K OHM +-5% 1/16W	R528	0700049	CF 4.7K OHM +-5% 1/16W
R4652	0700041	CF 1K OHM +-5% 1/16W	R529	0700057	CF 18K OHM +-5% 1/16W
R4653	0700041	CF 1K OHM +-5% 1/16W	R530	0700054	CF 10K OHM +-5% 1/16W
R4654	0100059	CF 560 OHM +-5% 1/8W	R536	0700058	CF 22K OHM +-5% 1/16W
R4655	0700041	CF 1K OHM +-5% 1/16W	R537	0700058	CF 22K OHM +-5% 1/16W
R4656	0700045	CF 2.2K OHM +-5% 1/16W	R538	0700058	CF 22K OHM +-5% 1/16W
R4657	0700067	CF 100K OHM +-5% 1/16W	R539	0700043	CF 1.5K OHM +-5% 1/16W
R4658	0700067	CF 100K OHM +-5% 1/16W	R540	0700027	CF 100 OHM +-5% 1/16W
R4659	0700063	CF 47K OHM +-5% 1/16W	R542	0700058	CF 22K OHM +-5% 1/16W
R4660	0700063	CF 47K OHM +-5% 1/16W	R543	0700058	CF 22K OHM +-5% 1/16W
R4661	0700063	CF 47K OHM +-5% 1/16W	R544	0700054	CF 10K OHM +-5% 1/16W
R4662	0700063	CF 47K OHM +-5% 1/16W	R545	0700058	CF 22K OHM +-5% 1/16W
R4663	0700027	CF 100 OHM +-5% 1/16W	R546	0700064	CF 56K OHM +-5% 1/16W
R4664	0700067	CF 100K OHM +-5% 1/16W	R547	0700064	CF 56K OHM +-5% 1/16W
R4665	0700061	CF 33K OHM +-5% 1/16W	R548	0100133	CF 680K OHM +-5% 1/8W
R4666	0100117	CF 150K OHM +-5% 1/8W	R549	0700065	CF 68K OHM +-5% 1/16W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R550	0700065	CF 68K OHM +-5% 1/16W	⚠R708	0110367	MF 8.2K OHM +-5% 3W
R551	0700064	CF 56K OHM +-5% 1/16W	R709	0113770	CF 6.8K OHM +-5% 1/2W
R601	0700041	CF 1K OHM +-5% 1/16W	⚠R710	0110369	MF 10K OHM +-5% 3W
R602	0700046	CF 2.7K OHM +-5% 1/16W	R711	0119688	MF 0.22 OHM +-5% 1W
R603	0100121	CF 220K OHM +-5% 1/8W	R712	0100039	CF 82 OHM +-5% 1/8W
R604	0700046	CF 2.7K OHM +-5% 1/16W	R719	0113789	CF 39K OHM +-5% 1/2W
R605	0700048	CF 3.9K OHM +-5% 1/16W	R720	0700054	CF 10K OHM +-5% 1/16W
R606	0700051	CF 5.6K OHM +-5% 1/16W	R721	0113793	CF 56K OHM +-5% 1/2W
R607	0700059	CF 27K OHM +-5% 1/16W	R722	0100091	CF 12K OHM +-5% 1/8W
R608	0100121	CF 220K OHM +-5% 1/8W	R723	0700044	CF 1.8K OHM +-5% 1/16W
R609	0700061	CF 33K OHM +-5% 1/16W	R724	0700052	CF 6.8K OHM +-5% 1/16W
R610	0700054	CF 10K OHM +-5% 1/16W	R726	0700048	CF 3.9K OHM +-5% 1/16W
R611	0700057	CF 18K OHM +-5% 1/16W	R727	0700046	CF 2.7K OHM +-5% 1/16W
R612	0700045	CF 2.2K OHM +-5% 1/16W	R728	0187086	CF 7.5K OHM +-5% 1/16W
R613	0700027	CF 100 OHM +-5% 1/16W	R729	0113727	CF 120 OHM +-5% 1/2W
R614	0700027	CF 100 OHM +-5% 1/16W	R732	0110129	MF 220 OHM +-5% 1W
R651	0113725	CF 100 OHM +-5% 1/2W	⚠R733	01195121	FR 1 OHM +-5% 1/4W
R652	0113725	CF 100 OHM +-5% 1/2W	⚠R734	0119514	FR 10 OHM +-5% 1/4W
R653	0113725	CF 100 OHM +-5% 1/2W	R739	0110145	MF 1K OHM +-5% 1W
R654	0700027	CF 100 OHM +-5% 1/16W	⚠R742	0700063	CF 47K OHM +-5% 1/16W
R656	0100053	CF 330 OHM +-5% 1/8W	R744	0100127	CF 390K OHM +-5% 1/8W
R658	0700041	CF 1K OHM +-5% 1/16W	R750	0100075	CF 2.7K OHM +-5% 1/8W
R659	0700041	CF 1K OHM +-5% 1/16W	R751	0113719	CF 56 OHM +-5% 1/2W
R660	0700061	CF 33K OHM +-5% 1/16W	R753	0110359	MF 3.9K OHM +-5% 3W
R661	0700054	CF 10K OHM +-5% 1/16W	R754	0113766	CF 4.7K OHM +-5% 1/2W
⚠R662	0150138	VR 20K OHM-B	R755	0110359	MF 3.9K OHM +-5% 3W
R663	0187096	CF 20K OHM +-5% 1/16W	R759	0700045	CF 2.2K OHM +-5% 1/16W
R664	0700039	CF 820 OHM +-5% 1/16W	R760	0700051	CF 5.6K OHM +-5% 1/16W
R665	0113684	CF 2.2 OHM +-5% 1/2W	R761	0700057	CF 18K OHM +-5% 1/16W
R666	0113684	CF 2.2 OHM +-5% 1/2W	R762	0700056	CF 15K OHM +-5% 1/16W
R667	0700051	CF 5.6K OHM +-5% 1/16W	⚠R763	0150137	VR 10K OHM-B
R668	0700055	CF 12K OHM +-5% 1/16W	R764	0700038	CF 680 OHM +-5% 1/16W
R669	0700056	CF 15K OHM +-5% 1/16W	R765	0700057	CF 18K OHM +-5% 1/16W
R670	0700065	CF 68K OHM +-5% 1/16W	R766	0700039	CF 820 OHM +-5% 1/16W
R671	0113766	CF 4.7K OHM +-5% 1/2W	R767	0700054	CF 10K OHM +-5% 1/16W
R672	0110129	MF 220 OHM +-5% 1W	R768	0114149	CF 560 OHM +-5% 1/4W
R673	0700065	CF 68K OHM +-5% 1/16W	R769	0700054	CF 10K OHM +-5% 1/16W
R674	0114135	CF 150 OHM +-5% 1/4W	R770	0100117	CF 150K OHM +-5% 1/8W
R7001	0700039	CF 820 OHM +-5% 1/16W	R771	0700047	CF 3.3K OHM +-5% 1/16W
R7002	0100115	CF 120K OHM +-5% 1/8W	R772	0100049	CF 220 OHM +-5% 1/8W
R7003	0700049	CF 4.7K OHM +-5% 1/16W	R773	0700048	CF 3.9K OHM +-5% 1/16W
R7004	0700052	CF 6.8K OHM +-5% 1/16W	R779	0100065	CF 1K OHM +-5% 1/8W
R7005	0700049	CF 4.7K OHM +-5% 1/16W	R780	0100041	CF 100 OHM +-5% 1/8W
R7006	0700049	CF 4.7K OHM +-5% 1/16W	R781	0110279	MF 27K OHM +-5% 2W
R7007	0700046	CF 2.7K OHM +-5% 1/16W	R782	0110279	MF 27K OHM +-5% 2W
R7008	0700046	CF 2.7K OHM +-5% 1/16W	R783	0110279	MF 27K OHM +-5% 2W
R7009	0700047	CF 3.3K OHM +-5% 1/16W	R784	0110279	MF 27K OHM +-5% 2W
R7010	0700024	CF 56 OHM +-5% 1/16W	R785	0110279	MF 27K OHM +-5% 2W
R7011	0700033	CF 270 OHM +-5% 1/16W	R786	0114213	CF 33K OHM +-5% 1/4W
R7012	0114137	CF 180 OHM +-5% 1/4W	R787	0700052	CF 6.8K OHM +-5% 1/16W
R7014	0114147	CF 470 OHM +-5% 1/4W	R790	0700059	CF 27K OHM +-5% 1/16W
R7019	0700037	CF 560 OHM +-5% 1/16W	R791	0110101	MF 15 OHM +-5% 1W
R7020	0110105	MF 22 OHM +-5% 1W	R801B	0110371	MF 12K OHM +-5% 3W
R7021	0100027	CF 27 OHM +-5% 1/8W	R801G	0110371	MF 12K OHM +-5% 3W
R707	0700023	CF 47 OHM +-5% 1/16W	R801R	0110371	MF 12K OHM +-5% 3W

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
R802B	0110369	MF 10K OHM +-5% 3W	R927	0110369	MF 10K OHM +-5% 3W
R802G	0110369	MF 10K OHM +-5% 3W	R928	0700037	CF 560 OHM +-5% 1/16W
R802R	0110369	MF 10K OHM +-5% 3W	R929	0700045	CF 2.2K OHM +-5% 1/16W
R803B	0113744	CF 560 OHM +-5% 1/2W	R930	0700058	CF 22K OHM +-5% 1/16W
R803G	0113744	CF 560 OHM +-5% 1/2W	R931	0700056	CF 15K OHM +-5% 1/16W
R803R	0113744	CF 560 OHM +-5% 1/2W	R932	0700027	CF 100 OHM +-5% 1/16W
⚠R804B	0151635	VR 1M OHM-B	R935	0700061	CF 33K OHM +-5% 1/16W
⚠R804G	0151635	VR 1M OHM-B	R937	0700014	CF 10 OHM +-5% 1/16W
⚠R804R	0151635	VR 1M OHM-B	R938	0119693	MF 0.39 OHM +-5% 1W
R805B	0179534	MG 470K OHM +-5% 1/2W	R939	0700054	CF 10K OHM +-5% 1/16W
R805G	0179534	MG 470K OHM +-5% 1/2W	R940	0148015	WW 18 OHM +-10% 2W
R805R	0179534	MG 470K OHM +-5% 1/2W	R941	0700054	CF 10K OHM +-5% 1/16W
R806B	0179534	MG 470K OHM +-5% 1/2W	R942	0119688	MF 0.22 OHM +-5% 1W
R806G	0179534	MG 470K OHM +-5% 1/2W	R943	0700054	CF 10K OHM +-5% 1/16W
R806R	0179534	MG 470K OHM +-5% 1/2W	R944	0700044	CF 1.8K OHM +-5% 1/16W
R810B	0100049	CF 220 OHM +-5% 1/8W	R945	0700063	CF 47K OHM +-5% 1/16W
R810G	0100049	CF 220 OHM +-5% 1/8W	R952	0700058	CF 22K OHM +-5% 1/16W
R810R	0100049	CF 220 OHM +-5% 1/8W	R953	0119688	MF 0.22 OHM +-5% 1W
R811B	0100065	CF 1K OHM +-5% 1/8W	R954	0119688	MF 0.22 OHM +-5% 1W
R811G	0100065	CF 1K OHM +-5% 1/8W	R955	0700054	CF 10K OHM +-5% 1/16W
R811R	0100065	CF 1K OHM +-5% 1/8W	R956	0700054	CF 10K OHM +-5% 1/16W
R812B	0100040	CF 91 OHM +-5% 1/8W	⚠R957	0700043	CF 1.5K OHM +-5% 1/16W
R812G	0100033	CF 47 OHM +-5% 1/8W	R958	0700044	CF 1.8K OHM +-5% 1/16W
R812R	0100033	CF 47 OHM +-5% 1/8W	R959	0700054	CF 10K OHM +-5% 1/16W
⚠R813G	01513341	VR 200 OHM-B	R960	0110253	MF 2.2K OHM +-5% 2W
⚠R813R	01513341	VR 200 OHM-B	R961	0113797	CF 82K OHM +-5% 1/2W
R814R	0100041	CF 100 OHM +-5% 1/8W	R965	0700042	CF 1.2K OHM +-5% 1/16W
R815B	0100059	CF 560 OHM +-5% 1/8W	R967	0700046	CF 2.7K OHM +-5% 1/16W
R815G	0100059	CF 560 OHM +-5% 1/8W	R968	0700047	CF 3.3K OHM +-5% 1/16W
R815R	0100059	CF 560 OHM +-5% 1/8W	R971	0700043	CF 1.5K OHM +-5% 1/16W
R816B	0114201	CF 10K OHM +-5% 1/4W	R972	0147726	WW 4.7 OHM +-10% 10W
R816G	0114201	CF 10K OHM +-5% 1/4W	R973	0119514	FR 10 OHM +-5% 1/4W
R816R	0114201	CF 10K OHM +-5% 1/4W	R974	0700038	CF 680 OHM +-5% 1/16W
R817B	0100041	CF 100 OHM +-5% 1/8W	R975	0110137	MF 470 OHM +-5% 1W
R817G	0100041	CF 100 OHM +-5% 1/8W	R976	0700045	CF 2.2K OHM +-5% 1/16W
R817R	0100053	CF 330 OHM +-5% 1/8W	R977	0110229	MF 220 OHM +-5% 2W
⚠R901	0139015	CC 1M OHM +-20% 1/2W	⚠R978	0700041	CF 1K OHM +-5% 1/16W
⚠R902	0144151	WW 33 OHM +-5% 2W	R979	0110225	MF 150 OHM +-5% 2W
⚠R904	0147804	WW 0.75 OHM 16W	R980	0110229	MF 220 OHM +-5% 2W
R906	0114049	CF 22 OHM +-5% 1/4W	R981	0100067	CF 1.2K OHM +-5% 1/8W
R907	0114161	CF 1K OHM +-5% 1/4W	R982	0100067	CF 1.2K OHM +-5% 1/8W
R908	0145042	MF 22K OHM +-5% 5W			
⚠R909	0147658	WW 100 OHM +-5% 7W			**ICs**
R910	0110377	MF 22K OHM +-5% 3W			
R911	0113795	CF 68K OHM +-5% 1/2W	IC0001	2001452	IC MN1872012AHHF1 (MICON)
⚠R912	0148012	WW 0.10 OHM +-10% 2W	IC0002	2381111	IC M6M80021L
R913	0700038	CF 680 OHM +-5% 1/16W	IC0003	2380391	IC UPD6326C
R915	0100025	CF 22 OHM +-5% 1/8W	IC0004	2380391	IC UPD6326C
R917	0700033	CF 270 OHM +-5% 1/16W	IC1201	2003201	IC STK4275 (LINEAR)
R918	0187064	CF 910 OHM +-5% 1/16W	IC1301	2003191	IC STK4274 (LINEAR)
R919	0700061	CF 33K OHM +-5% 1/16W	IC1326	2003191	IC STK4274 (LINEAR)
R920	0700058	CF 22K OHM +-5% 1/16W	IC1351	2003191	IC STK4274 (LINEAR)
R921	0700041	CF 1K OHM +-5% 1/16W	IC2001	2361411	IC HD14520BP
R922	0700059	CF 27K OHM +-5% 1/16W	IC2101	2383191	IC LA7990
⚠R926	0147552	WW 33 OHM +-5% 5W	IC2102	2914051	IC NJM4560D

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SYSMBOL NO.	PART NO.	DESCRIPTION
IC2103	2914051	IC NJM4560D
IC2104	2914051	IC NJM4560D
IC2105	2914051	IC NJM4560D
IC3001	2003811	IC M52472 (LINEAR)
IC3005	2383342	IC LVA522AS-2 (LINEAR)
IC3006	2917611	IC LA7016
IC3007	2917611	IC LA7016
IC301	2381832	IC HA11559NT
IC3301	2383342	IC LVA522AS-2 (LINEAR)
IC3302	2380391	IC UPD6326C
IC4001	2003425	IC UPC7815AHF (LINEAR)
IC4002	2916321	IC LA4280
IC4003	2916321	IC LA4280
IC4004	2366392	IC AN5836
IC4005	2362605	IC BA4558
IC4401	2000991	IC M51134P (LINEAR)
IC4402	2362605	IC BA4558
IC4403	2362605	IC BA4558
IC4405	2362605	IC BA4558
IC4406	2362605	IC BA4558
IC4407	2362605	IC BA4558
IC4408	2362651	IC HD14053BP
IC4409	2366301	IC UPD4052BC
IC4410	2362651	IC HD14053BP
IC4411	2380041	IC MN3008
IC4412	2380051	IC MN3101
IC4413	2362605	IC BA4558
IC4414	2362605	IC BA4558
IC4415	2916051	IC TA7629P
IC4416	2366392	IC AN5836
IC4427	2362605	IC BA4558
IC4601	2361362	IC HD14069UBP
IC4602	2362605	IC BA4558
IC4603	2366301	IC UPD4052BC
IC4604	2362605	IC BA4558
IC4605	2362651	IC HD14053BP
IC4606	2000331	IC LA2770
IC4607	2362651	IC HD14053BP
IC4608	2366392	IC AN5836
IC4609	2380391	IC UPD6326C
IC4610	2362641	IC HD14013BP
IC4611	2362605	IC BA4558
IC501	2916633	IC HA11511CNT
IC502	2003501	IC LA7697(DS24) (LINEAR)
IC503	23687211	IC AN5352
IC504	2910815	IC HD74HC00P
IC505	2382135	IC HA178M09
IC601	2003541	IC LA7838 (LINEAR)
IC602	2003427	IC UP7824AHF (LINEAR)
⚠IC901	2380131	IC UPC1094C
⚠IC902	2381344	IC SE130N
⚠IC903	2000465	IC PS2501-1 (KC/LC) (PHOTO COUPLER)
⚠IC904	2000465	IC PS2501-1 (KC/LC) (PHOTO COUPLER)
IC909	2000641	IC SI-3240C (LINEAR)
IC910	2000632	IC SI-3120CA
IC911	2003413	IC UP7912HF (LINEAR)
IC913	2003416	IC UP7924HF (LINEAR)
		TRANSISTORS
Q0001	2327783	TR 2SC3553 C/D
Q0003	2312941M	TR 2SC3413BC/1740S-QRTA
Q0004	2312941M	TR 2SC3413BC/1740S-QRTA
Q0005	2327753	TR 2SA1390 (C)/(D)
Q0006	2312941M	TR 2SC3413BC/1740S-QRTA
Q0007	2312941M	TR 2SC3413BC/1740S-QRTA
Q0008	2312941M	TR 2SC3413BC/1740S-QRTA
Q0009	2327783	TR 2SC3553 C/D
Q0010	2327783	TR 2SC3553 C/D
Q0011	2327783	TR 2SC3553 C/D
Q0012	2312941M	TR 2SC3413BC/1740S-QRTA
Q0013	2312941M	TR 2SC3413BC/1740S-QRTA
Q0014	2312941M	TR 2SC3413BC/1740S-QRTA
Q0015	2312941M	TR 2SC3413BC/1740S-QRTA
Q0016	2326216	TR 2SC3116 S/T
Q0017	2327753	TR 2SA1390 (C)/(D)
Q0018	2327753	TR 2SA1390 (C)/(D)
Q0019	2312941M	TR 2SC3413BC/1740S-QRTA
Q0020	2312941M	TR 2SC3413BC/1740S-QRTA
Q0021	2312171	TR 2SC3852
Q0022	2327753	TR 2SA1390 (C)/(D)
Q0023	2312941M	TR 2SC3413BC/1740S-QRTA
Q0024	2312941M	TR 2SC3413BC/1740S-QRTA
Q1101	2312941M	TR 2SC3413BC/1740S-QRTA
Q1276	2312941M	TR 2SC3413BC/1740S-QRTA
Q1277	2312941M	TR 2SC3413BC/1740S-QRTA
Q1278	2312941M	TR 2SC3413BC/1740S-QRTA
Q1279	2312941M	TR 2SC3413BC/1740S-QRTA
Q1280	2327753	TR 2SA1390 (C)/(D)
Q1401	2312941M	TR 2SC3413BC/1740S-QRTA
Q2001	2312941M	TR 2SC3413BC/1740S-QRTA
Q2002	2327753	TR 2SA1390 (C)/(D)
Q2003	2312941M	TR 2SC3413BC/1740S-QRTA
Q2004	2312941M	TR 2SC3413BC/1740S-QRTA
Q2005	2312941M	TR 2SC3413BC/1740S-QRTA
Q2006	2312941M	TR 2SC3413BC/1740S-QRTA
Q2007	2312941M	TR 2SC3413BC/1740S-QRTA
Q2008	2312941M	TR 2SC3413BC/1740S-QRTA
Q2009	2327753	TR 2SA1390 (C)/(D)
Q2010	2312941M	TR 2SC3413BC/1740S-QRTA
Q2011	2312941M	TR 2SC3413BC/1740S-QRTA
Q2115	2320595	TR 2SC458(D)
Q2116	2320595	TR 2SC458(D)
Q2122	2320595	TR 2SC458(D)
Q2123	2320681	TR 2SA673A B/C
Q2124	2320681	TR 2SA673A B/C
Q2125	2320681	TR 2SA673A B/C
Q2126	2320595	TR 2SC458(D)
Q2130	2320595	TR 2SC458(D)
Q2131	2320595	TR 2SC458(D)

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SYSMBOL NO.	PART NO.	DESCRIPTION
Q2133	2320595	TR 2SC458(D)
Q2141	2320663	TR 2SC1213AC
Q2142	2320595	TR 2SC458(D)
Q3007	2326021	TR 2SC1741S
Q3018	2312941M	TR 2SC3413BC/1740S-QRTA
Q3019	2312941M	TR 2SC3413BC/1740S-QRTA
Q302	2312941M	TR 2SC3413BC/1740S-QRTA
Q3023	2327753	TR 2SA1390 (C)/(D)
Q3024	2312941M	TR 2SC3413BC/1740S-QRTA
Q3025	2312941M	TR 2SC3413BC/1740S-QRTA
Q3026	2312941M	TR 2SC3413BC/1740S-QRTA
Q3027	2312941M	TR 2SC3413BC/1740S-QRTA
Q303	2312941M	TR 2SC3413BC/1740S-QRTA
Q304	2312941M	TR 2SC3413BC/1740S-QRTA
Q305	2327753	TR 2SA1390 (C)/(D)
Q306	2327753	TR 2SA1390 (C)/(D)
Q307	2327753	TR 2SA1390 (C)/(D)
Q308	2312941M	TR 2SC3413BC/1740S-QRTA
Q309	2312941M	TR 2SC3413BC/1740S-QRTA
Q310	2312941M	TR 2SC3413BC/1740S-QRTA
Q311	2326021	TR 2SC1741S
Q312	2325702	TR 2SA854S Q/R
Q313	2312941M	TR 2SC3413BC/1740S-QRTA
Q314	2327753	TR 2SA1390 (C)/(D)
Q315	2312941M	TR 2SC3413BC/1740S-QRTA
Q316	2312941M	TR 2SC3413BC/1740S-QRTA
Q317	2312941M	TR 2SC3413BC/1740S-QRTA
Q318	2327753	TR 2SA1390 (C)/(D)
Q321	2312941M	TR 2SC3413BC/1740S-QRTA
Q323	2327753	TR 2SA1390 (C)/(D)
Q324	2327753	TR 2SA1390 (C)/(D)
Q3301	2312941M	TR 2SC3413BC/1740S-QRTA
Q3302	2312941M	TR 2SC3413BC/1740S-QRTA
Q3303	2312941M	TR 2SC3413BC/1740S-QRTA
Q3304	2312941M	TR 2SC3413BC/1740S-QRTA
Q3305	2312941M	TR 2SC3413BC/1740S-QRTA
Q3306	2312941M	TR 2SC3413BC/1740S-QRTA
Q3307	2312941M	TR 2SC3413BC/1740S-QRTA
Q4003	2312941M	TR 2SC3413BC/1740S-QRTA
Q4004	2327753	TR 2SA1390 (C)/(D)
Q4005	2312941M	TR 2SC3413BC/1740S-QRTA
Q4006	2327753	TR 2SA1390 (C)/(D)
Q4007	2312941M	TR 2SC3413BC/1740S-QRTA
Q4008	2312941M	TR 2SC3413BC/1740S-QRTA
Q4010	2312941M	TR 2SC3413BC/1740S-QRTA
Q4011	2312941M	TR 2SC3413BC/1740S-QRTA
Q4013	2312941M	TR 2SC3413BC/1740S-QRTA
Q4014	2312941M	TR 2SC3413BC/1740S-QRTA
Q4017	2312941M	TR 2SC3413BC/1740S-QRTA
Q4018	2327783	TR 2SC3553 C/D
Q4019	2327753	TR 2SA1390 (C)/(D)
Q4020	2312941M	TR 2SC3413BC/1740S-QRTA
Q4021	2312941M	TR 2SC3413BC/1740S-QRTA
Q4022	2312941M	TR 2SC3413BC/1740S-QRTA
Q4023	2327783	TR 2SC3553 C/D
Q4024	2312171	TR 2SC3852
Q4028	2327753	TR 2SA1390 (C)/(D)
Q4029	2327753	TR 2SA1390 (C)/(D)
Q4030	2312941M	TR 2SC3413BC/1740S-QRTA
Q4031	2312941M	TR 2SC3413BC/1740S-QRTA
Q4401	2312941M	TR 2SC3413BC/1740S-QRTA
Q4408	2312941M	TR 2SC3413BC/1740S-QRTA
Q4409	2312941M	TR 2SC3413BC/1740S-QRTA
Q4410	2312941M	TR 2SC3413BC/1740S-QRTA
Q4411	2312941M	TR 2SC3413BC/1740S-QRTA
Q4412	2312941M	TR 2SC3413BC/1740S-QRTA
Q4413	2312941M	TR 2SC3413BC/1740S-QRTA
Q4414	2312941M	TR 2SC3413BC/1740S-QRTA
Q4415	2312941M	TR 2SC3413BC/1740S-QRTA
Q4601	2312941M	TR 2SC3413BC/1740S-QRTA
Q4602	2312941M	TR 2SC3413BC/1740S-QRTA
Q4603	2327753	TR 2SA1390 (C)/(D)
Q501	2312941M	TR 2SC3413BC/1740S-QRTA
Q502	2312941M	TR 2SC3413BC/1740S-QRTA
Q503	2312941M	TR 2SC3413BC/1740S-QRTA
Q504	2312941M	TR 2SC3413BC/1740S-QRTA
Q505	2312941M	TR 2SC3413BC/1740S-QRTA
Q507	2312941M	TR 2SC3413BC/1740S-QRTA
Q508	2312941M	TR 2SC3413BC/1740S-QRTA
Q509	2312941M	TR 2SC3413BC/1740S-QRTA
Q601	2327753	TR 2SA1390 (C)/(D)
Q602	2312941M	TR 2SC3413BC/1740S-QRTA
Q603	2312941M	TR 2SC3413BC/1740S-QRTA
Q7001	2312171	TR 2SC3852
⚠Q701	2326216	TR 2SC3116 S/T
Q707	2312941M	TR 2SC3413BC/1740S-QRTA
Q708	2327753	TR 2SA1390 (C)/(D)
Q710	2323123	TR 2SD1133 (D)
Q711	2327753	TR 2SA1390 (C)/(D)
Q713	2312941M	TR 2SC3413BC/1740S-QRTA
Q714	2312941M	TR 2SC3413BC/1740S-QRTA
⚠Q777	2315271	TRANSISTOR 2SC4589
⚠Q780	2314991	TRANSISTOR 2SC4630
Q801B	2312651	TR 2SC3503 C/D/E/F
Q801G	2312651	TR 2SC3503 C/D/E/F
Q801R	2312651	TR 2SC3503 C/D/E/F
Q802B	2312941M	TR 2SC3413BC/1740S-QRTA
Q802G	2312941M	TR 2SC3413BC/1740S-QRTA
Q802R	2312941M	TR 2SC3413BC/1740S-QRTA
Q803B	2327753	TR 2SA1390 (C)/(D)
Q803G	2327753	TR 2SA1390 (C)/(D)
Q803R	2327753	TR 2SA1390 (C)/(D)
⚠Q902	2390623	TRANSISTOR 2SK1181(LF714A)
⚠Q903	2323782	TR 03P2M
Q904	2321112	TR 2SA778A
Q905	2327753	TR 2SA1390 (C)/(D)
⚠Q906	2327753	TR 2SA1390 (C)/(D)
⚠Q907	2312941M	TR 2SC3413BC/1740S-QRTA
Q908	2327753	TR 2SA1390 (C)/(D)
Q909	2312941M	TR 2SC3413BC/1740S-QRTA

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SYSMBOL NO.	PART NO.	DESCRIPTION
⚠Q910	2323782	TR 03P2M
		DIODES
D0001	23383211	DI 1SS270
D0002	23383211	DI 1SS270
D0003	23383211	DI 1SS270
D0007	23383211	DI 1SS270
D0008	23383211	DI 1SS270
D0009	23383211	DI 1SS270
D0017	23383211	DI 1SS270
D0018	23383211	DI 1SS270
D0019	23383211	DI 1SS270
D0022	23383211	DI 1SS270
D0023	23383211	DI 1SS270
D0024	23383211	DI 1SS270
D0026	23383211	DI 1SS270
D0028	23383211	DI 1SS270
D0031	23383211	DI 1SS270
D0032	23383211	DI 1SS270
D0033	23383211	DI 1SS270
D0034	23383211	DI 1SS270
D0035	23383211	DI 1SS270
D0036	23383211	DI 1SS270
D0037	23383211	DI 1SS270
D0038	23383211	DI 1SS270
D0039	23383211	DI 1SS270
D0040	23383211	DI 1SS270
D0041	23383211	DI 1SS270
D1276	23383211	DI 1SS270
D1301	23394911	DI AM01Z
D1401	2339691	LED SLH-56VC77F
D2001	23383211	DI 1SS270
D2002	23383211	DI 1SS270
D2003	23383211	DI 1SS270
D2004	23383211	DI 1SS270
D2005	23383211	DI 1SS270
D2006	23383211	DI 1SS270
D2007	23383211	DI 1SS270
D2008	23383211	DI 1SS270
D2009	23383211	DI 1SS270
D2010	23383211	DI 1SS270
D2011	23383211	DI 1SS270
D2012	23383211	DI 1SS270
D2013	23383211	DI 1SS270
D2014	23383211	DI 1SS270
D2101	23383211	DI 1SS270
D2102	23383211	DI 1SS270
D2103	23383211	DI 1SS270
D2104	23383211	DI 1SS270
D2105	23383211	DI 1SS270
D2107	23383211	DI 1SS270
D2108	23383211	DI 1SS270
D2109	23383211	DI 1SS270
D2111	23383211	DI 1SS270
D3001	23383211	DI 1SS270
D3002	23383211	DI 1SS270
D3003	23383211	DI 1SS270
D3004	23383211	DI 1SS270
D3005	23383211	DI 1SS270
D3006	23383211	DI 1SS270
D301	23383211	DI 1SS270
D3012	23383211	DI 1SS270
D3013	23383211	DI 1SS270
D302	23383211	DI 1SS270
D303	23383211	DI 1SS270
D304	23383211	DI 1SS270
D305	23383211	DI 1SS270
D306	23383211	DI 1SS270
D307	23383211	DI 1SS270
D308	23383211	DI 1SS270
D309	23383211	DI 1SS270
D310	23383211	DI 1SS270
D311	23383211	DI 1SS270
D312	23383211	DI 1SS270
D313	23383211	DI 1SS270
D316	23383211	DI 1SS270
D317	23383211	DI 1SS270
D3301	23383211	DI 1SS270
D4002	23383211	DI 1SS270
D4004	23383211	DI 1SS270
D4009	23383211	DI 1SS270
D4010	23383211	DI 1SS270
D4011	23383211	DI 1SS270
D4012	23383211	DI 1SS270
D4013	23383211	DI 1SS270
D4014	23383211	DI 1SS270
D4015	23394911	DI AM01Z
D4401	23383211	DI 1SS270
D4402	23383211	DI 1SS270
D4403	23383211	DI 1SS270
D4404	23383211	DI 1SS270
D4405	23383211	DI 1SS270
D4601	23383211	DI 1SS270
D4602	23383211	DI 1SS270
D4603	23383211	DI 1SS270
D4604	23383211	DI 1SS270
D4605	23383211	DI 1SS270
D4606	23383211	DI 1SS270
D501	23383211	DI 1SS270
D502	23383211	DI 1SS270
D503	23383211	DI 1SS270
D507	23383211	DI 1SS270
D508	23383211	DI 1SS270
D651	2338902	DI DFM1SA4
D652	2338902	DI DFM1SA4
D653	23394911	DI AM01Z
D654	23394911	DI AM01Z
D655	23383211	DI 1SS270
D657	23383211	DI 1SS270

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SYSMBOL NO.	PART NO.	DESCRIPTION
D658	23394911	DI AM01Z
D659	23383211	DI 1SS270
D660	23394911	DI AM01Z
D7001	23383211	DI 1SS270
D7002	23383211	DI 1SS270
D7003	23383211	DI 1SS270
D7004	23383211	DI 1SS270
⚠D701	2330564	DI V11N
⚠D702	2338902	DI DFM1SA4
⚠D703	2330564	DI V11N
D705	2338902	DI DFM1SA4
⚠D706	2332152	DI GH3F
D707	2339531	DI RG4A
D709	23383211	DI 1SS270
D710	2334581	DI ES1A
⚠D711	2330564	DI V11N
D728	23383211	DI 1SS270
D781	23383211	DI 1SS270
D801B	23383211	DI 1SS270
D801G	23383211	DI 1SS270
D801R	23383211	DI 1SS270
⚠D901	2338313	DI RBV-406M
D901	23394911	DI AM01Z
D902	23394911	DI AM01Z
D903	23394911	DI AM01Z
D906	2398611	DI 1SS254
D907	2338532	DI EG-01A
D908	23394811	DI AS01Z
⚠D909	2338944	DI FML-G12S(F)
⚠D910	2338932	DI FMG-G36S
D911	23383211	DI 1SS270
⚠D925	2338944	DI FML-G12S(F)
⚠D926	2338944	DI FML-G12S(F)
⚠D927	2338944	DI FML-G12S(F)
⚠D928	2338944	DI FML-G12S(F)
D929	23383211	DI 1SS270
D930	23383211	DI 1SS270
D931	23394911	DI AM01Z
D932	23394911	DI AM01Z
D937	23394911	DI AM01Z
D938	23394911	DI AM01Z
D939	23383211	DI 1SS270
ZD0001	2331785	DIODE-ZENER HZ4(B2)
ZD0002	2331849	ZD HZ-12(C3)
ZD0003	2331845	ZD HZ12 (B2)
ZD0004	2331804	ZD HZ6 (B1)
ZD0005	2331804	ZD HZ6 (B1)
ZD0006	2331833	ZD HZ11(A)3
ZD0007	2339242	ZD HZS33-2L
ZD0014	2331819	ZD HZ7(C)3
ZD0015	2331799	ZD HZ5(C)3
ZD0018	2331799	ZD HZ5(C)3
ZD0019	2331804	ZD HZ6 (B1)
ZD0020	2339825	ZD HZS4B2
ZD0021	2339839	ZD HZS5C3
ZD1226	2334324	ZD RD36EB3
ZD1227	2334324	ZD RD36EB3
ZD1301	2334324	ZD RD36EB3
ZD1302	2334324	ZD RD36EB3
ZD1311	2334324	ZD RD36EB3
ZD1312	2334324	ZD RD36EB3
ZD1326	2334324	ZD RD36EB3
ZD1327	2334324	ZD RD36EB3
ZD1336	2334324	ZD RD36EB3
ZD1337	2334324	ZD RD36EB3
ZD1351	2334324	ZD RD36EB3
ZD1352	2334324	ZD RD36EB3
ZD1361	2334324	ZD RD36EB3
ZD1362	2334324	ZD RD36EB3
ZD1401	2339839	ZD HZS5C3
ZD2101	2334285	DIODE-ZENER RD24EB4
ZD2102	2334285	DIODE-ZENER RD24EB4
ZD2103	2334285	DIODE-ZENER RD24EB4
ZD2104	2334285	DIODE-ZENER RD24EB4
ZD2105	2334285	DIODE-ZENER RD24EB4
ZD2106	2334285	DIODE-ZENER RD24EB4
ZD2107	2334285	DIODE-ZENER RD24EB4
ZD2108	2334285	DIODE-ZENER RD24EB4
ZD2109	2334285	DIODE-ZENER RD24EB4
ZD2110	2334285	DIODE-ZENER RD24EB4
ZD3001	2339868M	ZD HZS9C2TA
ZD3002	2339868M	ZD HZS9C2TA
ZD3003	2339868M	ZD HZS9C2TA
ZD301	2331781	ZD HZ4 (A1)
ZD302	2339868M	ZD HZS9C2TA
ZD303	2339868M	ZD HZS9C2TA
ZD304	2339868M	ZD HZS9C2TA
ZD305	2339868M	ZD HZS9C2TA
ZD306	2339868M	ZD HZS9C2TA
ZD307	2339868M	ZD HZS9C2TA
ZD308	2334283	ZD RD24EB2
ZD309	2339868M	ZD HZS9C2TA
ZD312	2339831M	DIODE-ZENER HZS5A1-M
ZD313	2331849	ZD HZ-12(C3)
ZD314	2334303	ZD RD30EB2
ZD315	2331849	ZD HZ-12(C3)
ZD3301	2331849	ZD HZ-12(C3)
ZD3302	2331799	ZD HZ5(C)3
ZD3303	2331799	ZD HZ5(C)3
ZD3304	2331799	ZD HZ5(C)3
ZD3305	2331799	ZD HZ5(C)3
ZD3306	2331799	ZD HZ5(C)3
ZD4001	2331833	ZD HZ11(A)3
ZD4002	2334283	ZD RD24EB2
ZD4003	2331849	ZD HZ-12(C3)
ZD4004	2331849	ZD HZ-12(C3)
ZD4005	2331849	ZD HZ-12(C3)
ZD4006	2331849	ZD HZ-12(C3)
ZD4007	2331849	ZD HZ-12(C3)
ZD4008	2331849	ZD HZ-12(C3)

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SYSMBOL NO.	PART NO.	DESCRIPTION
ZD4009	2331849	ZD HZ-12(C3)
ZD4010	2331831	ZD HZ-11 (A1)
ZD4012	2331833	ZD HZ11(A)3
ZD4401	2339833	DIODE-ZENER HZS5A3
ZD4404	2330631	ZD HZ7(A)
ZD4601	2331795	ZD HZ-5 (B2)
ZD501	2331828M	ZD HZ-9C2 TA
ZD502	2331828M	ZD HZ-9C2 TA
ZD503	2331828M	ZD HZ-9C2 TA
ZD601	2331828M	ZD HZ-9C2 TA
ZD602	2334323M	DIODE-ZENER RD36EB2
ZD603	2331828M	ZD HZ-9C2 TA
ZD651	2331807	ZD HZ-6 (C1)
ZD652	2331155	ZD HZ12 (C1/C2/C3)
ZD7001	2331828M	ZD HZ-9C2 TA
ZD7002	2339846M	ZD HZS6B3TA
ZD7003	2339825	ZD HZS4B2
ZD7004	2331849	ZD HZ-12(C3)
ZD7005	2331828M	ZD HZ-9C2 TA
ZD709	2339801	ZD HZS2B1
⚠ZD710	2335461	ZD HZ24 (2L)
ZD712	2334334	ZD RD39EB3
ZD801B	2331827	ZD HZ-9 (C1)
ZD801G	2331827	ZD HZ-9 (C1)
ZD801R	2331827	ZD HZ-9 (C1)
ZD901	2339031	ZD HZS6C1L
ZD903	2334324	ZD RD36EB3
ZD904	2334243	ZD RD16E(B2)
ZD906	2339031	ZD HZS6C1L
ZD913	2334283	ZD RD24EB2
ZD916	2334304	ZD RD30EB3
		TRANSFORMERS
⚠T701	2260291	HOLIZONTAL DRIVE TRANSFORMER
⚠T702	2436492	FLYBACK TRANSFORMER
⚠T703	2272762	SPC TRANSFORMER
⚠T901	2213993	POWER TRANSFORMER
⚠T902	2215592	SWITCHING TRANSFORMER
⚠T903	2215861	POWER TRANSFORMER
		FUSES
⚠F901	2721053	UL FUSE 5A
⚠F903	2721052	UL FUSE 4A
⚠F904	2721052	UL FUSE 4A
⚠F905	2721051	UL FUSE 1.6A
		COMPOUND CONPONENTS
CP0001	2791754	DSS306-55B101M
CP0002	2791754	DSS306-55B101M
CP0003	2791754	DSS306-55B101M
CP0004	2791754	DSS306-55B101M

SYSMBOL NO.	PART NO.	DESCRIPTION
CP1401	2381122	REMOTE CONTROL RECEIVER SPS-409-1Y
⚠CP702	0150663	FOCUS PACK MHF174-03
⚠CP901	2790291	COMPOUND COMPONENT
⚠CP903	2790291	COMPOUND COMPONENT
MF0001	2163972	CERAMIC FILTER 6MHZ
MF301	2163971	CERAMIC FILTER
MF7001	2786683	CERAMIC OSCILLATOR
M301	2375231	CHIP BOARD HC3020
M302	2375251	CHIP BOARD HC3031
M4001	2378211	MODULE MC-7001(B)
		COILS
L0001	2120482	FILTER COIL 100 MICRO H +-10%
L0002	2120482	FILTER COIL 100 MICRO H +-10%
L0003	2120482	FILTER COIL 100 MICRO H +-10%
L0004	2120482	FILTER COIL 100 MICRO H +-10%
L0005	2122253	LA AXIAL COIL 100 MICRO H
L1291	2272753	FOCUS CHOKE COIL
L2101	2120484	FILTER COIL
L2102	2120484	FILTER COIL
L2103	2120484	FILTER COIL
L2104	2120484	FILTER COIL
L3002	2120482	FILTER COIL 100 MICRO H +-10%
L3004	2122951	LA AXIAL COIL 39 MICRO H +-10%
L3005	2120482	FILTER COIL 100 MICRO H +-10%
L3006	2120482	FILTER COIL 100 MICRO H +-10%
L3007	2120482	FILTER COIL 100 MICRO H +-10%
L3008	2120482	FILTER COIL 100 MICRO H +-10%
L301	2120482	FILTER COIL 100 MICRO H +-10%
L3011	2120482	FILTER COIL 100 MICRO H +-10%
L3012	2120482	FILTER COIL 100 MICRO H +-10%
L302	2120482	FILTER COIL 100 MICRO H +-10%
L303	2122942	LA AXIAL COIL 8.2 MICRO H +-10%
L304	2122956	LA AXIAL COIL 100 MICRO H +-10%
L3301	2120482	FILTER COIL 100 MICRO H +-10%
L3302	2120482	FILTER COIL 100 MICRO H +-10%
L3303	2120482	FILTER COIL 100 MICRO H +-10%
L3304	2120482	FILTER COIL 100 MICRO H +-10%
L3305	2120482	FILTER COIL 100 MICRO H +-10%
L501	2122951	LA AXIAL COIL 39 MICRO H +-10%
L651	2120482	FILTER COIL 100 MICRO H +-10%
L701	2121181	FILTER COIL
L703	2124181	CHOKE COIL
L706	2124511	LINEARITY COIL
L707	2122095	FILTER COIL 27 MICRO H
L708	2120482	FILTER COIL 100 MICRO H +-10%
L709	2122094	FIXED COIL
L711	2123469M	FERRITE BEADS CORE READ 2.3
L802B	2122255	LA AXIAL COIL 150 MICRO H
L802G	2122255	LA AXIAL COIL 150 MICRO H
L802R	2122255	LA AXIAL COIL 150 MICRO H
⚠L901	2229052	LINE FILTER 3.5A
⚠L902	2229052	LINE FILTER 3.5A

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SYSMBOL NO.	PART NO.	DESCRIPTION	SYSMBOL NO.	PART NO.	DESCRIPTION
⚠L903	2274556	FILTER COIL	12	4518772	3X12 TNE
⚠L904	2229052	LINE FILTER 3.5A	13	3716742	PLASTIC HOLDER
⚠L905	2229051	LINE FILTER 5.5A	14	3746482	WIRE CLAMP
L906	2123469M	FERRITE BEADS CORE READ 2.3	15	4520771	4X18 TAPPING SCREW WITH WASHER
L907	2122653	FERRITE BEADS CORE	16	4520883	M3X12 SCREW WITH WASHER
L908	2123469M	FERRITE BEADS CORE READ 2.3	17	4482582	BACK COVER SUPPORT METAL
L909	2122653	FERRITE BEADS CORE	18	3209492	TERMINAL BOARD ASS'Y
L910	2122653	FERRITE BEADS CORE	19	3853201	SUPPORT METAL COVER
L911	2123469M	FERRITE BEADS CORE READ 2.3	20	4137975	4X16 ZA R SCREW
L915	2123469M	FERRITE BEADS CORE READ 2.3	21	3122981	CABINET ASS'Y B (HHEA MD)
L916	2122653	FERRITE BEADS CORE		3122982	CABINET ASS'Y K (HHEA MD)
L918	2122653	FERRITE BEADS CORE		3742021	LEAD HOLDER(CABINET)
L919	2122653	FERRITE BEADS CORE		4526351	SPACER
L920	2121676	FIXED COIL	22	4329271	WASHER (F)
L922	2161152	FILTER COIL	23	3191461	50 FRONT SURF MIRROR
L929	2121674	LINE FILTER COIL	24	4522901	NUT
L952	2161152	FILTER COIL	25	3794331	PRESET DRIVER
L953	2161152	FILTER COIL	26	4321071	SPEAKER COVER
L954	2161152	FILTER COIL	27	4519503	3X12 TAPPING SCREW
L955	2161152	FILTER COIL	28	4520232	4X16 DT SCREW
L969	2123469M	FERRITE BEADS CORE READ 2.3	29	4618172	RUBBER SPACER
L970	2123469M	FERRITE BEADS CORE READ 2.3	30	4524912	HEXAGON FLANGEHEAD 4X16
L971	2123469M	FERRITE BEADS CORE READ 2.3	31	3447251	UNIT METAL COVER (A)
L972	2123469M	FERRITE BEADS CORE READ 2.3	32	3447252	UNIT METAL COVER (B)
L973	2123469M	FERRITE BEADS CORE READ 2.3	33	4519512	TAPPING SCREW 4X16 MM
L974	2123469M	FERRITE BEADS CORE READ 2.3	34	3169601	REAR BOARD (HHEA MD)
L975	2123469M	FERRITE BEADS CORE READ 2.3	35	4304282	COVER NET
L981	2122956	LA AXIAL COIL 100 MICRO H +-10%	36	4517997	4X12 SELF TAPPING SCREW
L982	2122956	LA AXIAL COIL 100 MICRO H +-10%	37	3727972	HOLDER-AC LINE CORD
L983	2123469M	FERRITE BEADS CORE READ 2.3	38	3850471	SCREEN FRAME (H)
L984	2161152	FILTER COIL	39	3850472	SCREEN FRAME (V)
			40	3189413	SCREEN ASS'Y (HHEA MD)
		SWITCHES	⚠ 41	48663831	LENS CRT B ASS'Y B (HHEA MD)
			⚠ 42	4866382	LENS CRT B ASS'Y G (HHEA MD)
S1401	2631863	PUSH SWITCH	⚠ 43	4866381	LENS CRT B ASS'Y R (HHEA MD)
S1402	2983114	3P PIN JACK WITH S TERMINAL	44	4530841	HEXAGON BOLT&W ASS 4 x 16
S2001	2621031	SLIDE SWITCH	DL3001	2165801	DELAY LNE SDL4242
S301	2621051	SLIDE SWITCH	E	2771894	FERRITE BEADS CORE 006
			⚠EANT	2427365	ANTENNA SWITCH ASS'Y ASB-311E-
		MISCELLANEOUS	EB	2771892	FERRITE BEADS CORE 004
			EC	2771893	FERRITE BEADS CORE
1	3209672	CONTROL PANEL ASS'Y	ECB	2661753	PIN PLUG WITH BASE
	3785043	PUSH LOCK A	ECD	2902263	4P SUB MINI PLUG PIN
	3811195	POWER KNOB	ECG	2661753	PIN PLUG WITH BASE
	3332453	SPRING FOR KNOB	ECR	2661753	PIN PLUG WITH BASE
2	3821102	DOOR ASS'Y	ED	2661753	PIN PLUG WITH BASE
3	3462207	BACK COVER (HHEA MD)	ED	2771893	FERRITE BEADS CORE
⚠ 4	4304553	CRT UNIT BRACKET	EDA	2661751	PLUG PIN WITH BASE
5	3700971	LEAD CLAMP	EFO	2661753	PIN PLUG WITH BASE
6	3811971	BACK COVER DOOR	EIE	2663821	2P PLUG PIN
7	4305083	LENS-CRT UNIT METAL SUPPORT	EJ1G	2663821	2P PLUG PIN
8	4305082	LENS-CRT UNIT METAL SUPPORT R	EMB	2665272	4P PLUG PIN WITH BASE
9	4524911	HEXAGON FLANGEHEAD 4X12	EMG	2665272	4P PLUG PIN WITH BASE
10	4159427	3X10 TAPPING SCREW WITH WASHER	EMR	2665272	4P PLUG PIN WITH BASE
11	8781440	3X10 TAPPING SCREW	ESL	2661944	CONNECTOR

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SYSMBOL NO.	PART NO.	DESCRIPTION
ETS	2663821	2P PLUG PIN
E1	2983082	OP PINJACK WITH S TERMINAL
⚠E101	2443107	DEFLECTION YOKE V8-6.7ST
⚠E101G	2443108	DEFLECTION YOKE V8-6.7ST ASS'Y
E103G	3810831	MAGNET SPACER
E104	2774965	BEAM ALINEMENT MAGNET (HHEA MD)
E104G	2774962	BEAM ALINEMENT MAGNET
⚠E105G	2774976	FOCUS MAGNET (HHEA MD)
E2	2983388	9P PINJACK WITH SWITCH
E202	2982471	300-75 VHF ADAPTER
E3	2983082	OP PINJACK WITH S TERMINAL
E301	2573414	REMOTE CONTROL TRANSMITTER CLU-950GR (HHEA MD)
E302	2573621	REMOTE CONTROL TRANSMITTER CLU-609 (HHEA MD)
E4	2983387	5P PIN JACK
E4801	2983011	4P PUSH TERMINAL
⚠E801B	2698361	CPT SOCKET
⚠E801G	2698361	CPT SOCKET
⚠E801R	2698361	CPT SOCKET
E802	2661756	1P PLUG PIN WITH BASE
⚠E9001	2742559	AC POWER CORD
⚠E9002	3772201	AC CORD HOLDER
⚠E9003	3739671	CORD HOLDER
⚠FE0001	2429341	FRONTEND V8-A58FT
N	2720221	FUSE HOLDER
NC732	3763752	SK BINDER
ND901A	4520883	M3X12 SCREW WITH WASHER
ND910N	4520883	M3X12 SCREW WITH WASHER
NF901	2720221	FUSE HOLDER
NIC909	4520883	M3X12 SCREW WITH WASHER
NIC910	4520883	M3X12 SCREW WITH WASHER
NIC911	4520883	M3X12 SCREW WITH WASHER
NI121B	4520885	M3X16 SCREW
NI121D	4518772	3X12 TNE
NI131B	4520885	M3X16 SCREW
NI131C	4518772	3X12 TNE
NI601B	4520881	M3X8 SCREW WITH WASHER
⚠NP901	2784342	CONDENSER COVER
NQ710B	4520881	M3X8 SCREW WITH WASHER
NQ777B	4520883	M3X12 SCREW WITH WASHER
NQ777D	4518772	3X12 TNE
NQ780B	4520881	M3X8 SCREW WITH WASHER
NQ902M	4520883	M3X12 SCREW WITH WASHER
NQ902N	4520883	M3X12 SCREW WITH WASHER
NQ902O	4770601	3 FLANGE NUT
N002	3731081	PURSE LOCK 10
N006	3737101	PURSE LOCK 15
N1	4520883	M3X12 SCREW WITH WASHER
N101	2940781	FERRITE CLAMP
N1030	4159427	3X10 TAPPING SCREW WITH WASHER
N1033	4518772	3X12 TNE
N1055	4159425	3X16 TAPPING SCREW
N1060	3746482	WIRE CLAMP
N1073	4159427	3X10 TAPPING SCREW WITH WASHER
N151B	4526322	M8X10 SCREW
N151G	4526322	M8X10 SCREW
N151R	4526322	M8X10 SCREW
N155	4524911	HEXAGON FLANGEHEAD 4X12
N157B	4524913	HEXAGON FLANGEHEAD 4X12 R
N157G	4524913	HEXAGON FLANGEHEAD 4X12 R
N157R	4524913	HEXAGON FLANGEHEAD 4X12 R
N2	4520881	M3X8 SCREW WITH WASHER
⚠N200B	3708416	LENS SASS SP B
⚠N200G	3708415	LENS SASS SP RG2
⚠N200R	3708415	LENS SASS SP RG2
N270	4526102	4X18 SCREW
N285	4526101	4X12 SCREW
N290	4518253	3X10 TAPPING SCREW FOR PLASTIC
N408B	3332021	EARTH SPRING
N408G	3332021	EARTH SPRING
N408R	3332021	EARTH SPRING
N409B	4159411	3X8 KNURL TAPPING SCREW
N409G	4159411	3X8 KNURL TAPPING SCREW
N409R	4159411	3X8 KNURL TAPPING SCREW
N505	4159427	3X10 TAPPING SCREW WITH WASHER
N508	4518772	3X12 TNE
N509	8815124	WASHER,LOCK 3MM
N605	4159427	3X10 TAPPING SCREW WITH WASHER
N608	4518772	3X12 TNE
N609	8815124	WASHER,LOCK 3MM
N703	4159427	3X10 TAPPING SCREW WITH WASHER
N801	3763751	SK BINDER
N803	4520881	M3X8 SCREW WITH WASHER
N805	4159427	3X10 TAPPING SCREW WITH WASHER
N806	8815124	WASHER,LOCK 3MM
N911	8821114	NUT 3
PDA	2661941	L TYPE PLUG WITH BASE2P
PPD	2663134	PLUG PIN WITH BASE (5P)
PP31	2661751	PLUG PIN WITH BASE
⚠RL901	2640572	POWER RELAY
SG801B	2340039	SPARK GAP
SG801G	2340039	SPARK GAP
SG801R	2340039	SPARK GAP
SG802B	2340039	SPARK GAP
SG802G	2340039	SPARK GAP
SG802R	2340039	SPARK GAP
⚠SP401	2412921	SPEAKER 160MM
⚠SP402	2412921	SPEAKER 160MM
⚠SP403	2410954	SPEAKER 50DGB (HHEA MD)
⚠SP404	2410954	SPEAKER 50DGB (HHEA MD)
TH2101	2340552	THERMISTOR
W811B	2692461	FOCUS LEAD WIRE (HHEA MD)
W811G	2692461	FOCUS LEAD WIRE (HHEA MD)
W811R	2692461	FOCUS LEAD WIRE (HHEA MD)
X501	2791501	CRYSTAL HC-49/U